

# JOINT BUDGET COMMITTEE



## STAFF BUDGET BRIEFING FY 2019-20

## OFFICE OF THE GOVERNOR

JBC WORKING DOCUMENT - SUBJECT TO CHANGE  
STAFF RECOMMENDATION DOES NOT REPRESENT COMMITTEE DECISION

PREPARED BY:  
KEVIN NEIMOND, JBC STAFF  
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JOINT BUDGET COMMITTEE STAFF  
200 E. 14TH AVENUE, 3RD FLOOR • DENVER • COLORADO • 80203  
TELEPHONE: (303) 866-2061 • TDD: (303) 866-3472  
<https://leg.colorado.gov/agencies/joint-budget-committee>

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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 2016-17	FY 2017-18	FY 2018-19	FY 2019-20 *
General Fund	\$35,966,004	\$35,324,665	\$42,340,000	\$49,806,049
Cash Funds	44,733,104	47,400,500	47,889,843	50,096,103
Reappropriated Funds	220,765,787	245,351,971	255,022,179	299,719,994
Federal Funds	6,511,867	6,455,720	6,767,275	6,891,187
<b>TOTAL FUNDS</b>	<b>\$307,976,762</b>	<b>\$334,532,856</b>	<b>\$352,019,297</b>	<b>\$406,513,333</b>
Full Time Equiv. Staff	1,090.0	1,091.2	1,101.5	1,157.1

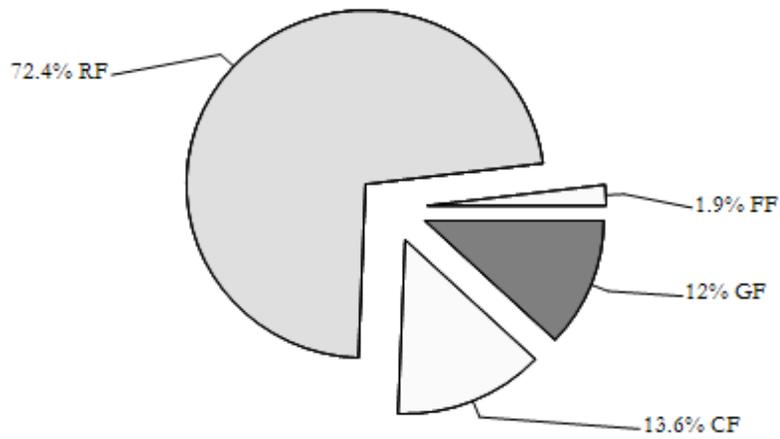
\*Requested appropriation.

# DEPARTMENT BUDGET: GRAPHIC OVERVIEW

**Department's Share of Statewide General Fund**

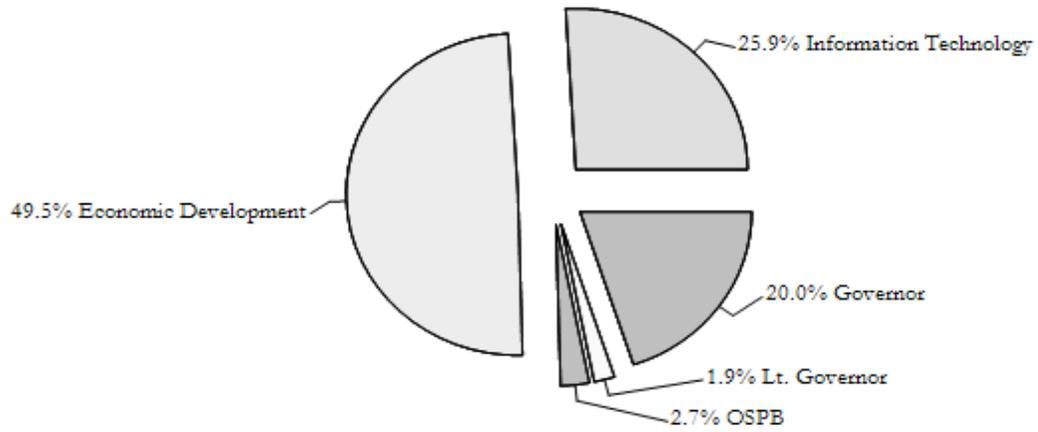


**Department Funding Sources**

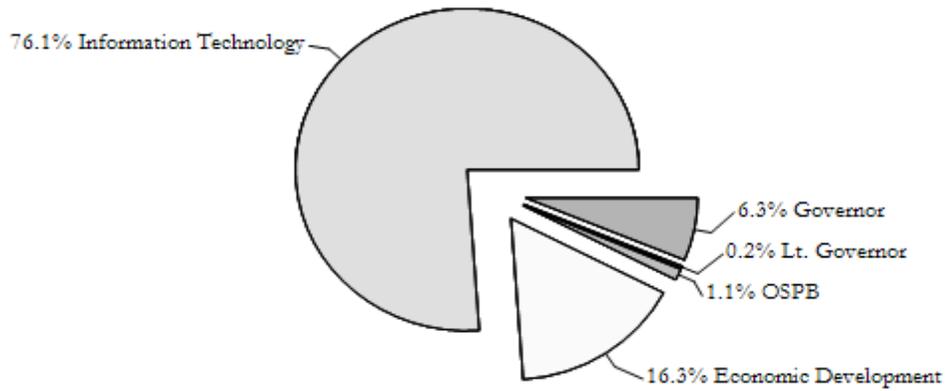


All charts are based on the FY 2018-19 appropriation.

### Distribution of General Fund by Division



### Distribution of Total Funds by Division



All charts are based on the FY 2018-19 appropriation.

## GENERAL FACTORS DRIVING THE BUDGET

Funding for this department consists of 12.0 percent General Fund, 13.6 percent cash funds, 72.4 percent reappropriated funds, and 1.9 percent federal funds for FY 2018-19. The major factors driving the Department's budget are discussed below for each agency.

### OFFICE OF THE GOVERNOR (DIVISION)

FUNDING SOURCE	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20*
General Fund	\$4,703,539	\$5,030,265	\$8,448,283	\$8,583,099
Cash Funds	11,898,892	8,076,329	8,023,620	9,023,458
Reappropriated Funds	563,706	870,409	1,366,074	1,254,635
Federal Funds	3,908,145	3,913,382	4,224,937	4,343,023
<b>TOTAL FUNDS</b>	<b>\$21,074,282</b>	<b>\$17,890,385</b>	<b>\$22,062,914</b>	<b>\$23,204,215</b>
Full Time Equiv. Staff	65.7	40.7	57.2	57.2

\*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. For FY 2018-19, the Office was appropriated \$3.1 million General Fund to fund its operations.

In addition to General Fund, the Office also receives transfers of severance tax revenue (tier two) 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 forecasts, for FY 2019-20, the Weatherization Low-Income Energy Assistance Fund is projected to receive \$5,905,917 and the Energy Outreach Low-Income Energy Assistance Fund is projected to receive \$2,952,958.

## OFFICE OF THE LIEUTENANT GOVERNOR

FUNDING SOURCE	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20*
General Fund	\$439,027	\$506,117	\$817,425	\$1,118,337
Cash Funds	1,184	1,184	1,184	1,184
Reappropriated Funds	218,825	0	0	2,008,154
Federal Funds	0	0	0	0
<b>TOTAL FUNDS</b>	<b>\$659,036</b>	<b>\$507,301</b>	<b>\$818,609</b>	<b>\$3,127,675</b>
Full Time Equiv. Staff	6.0	5.9	5.7	11.2

\*Requested appropriation.

Nearly 100.0 percent of the funding for the Office of the Lieutenant Governor in FY 2018-19 was from the General Fund. From FY 2016-17 to FY 2018-19, the agency's General Fund appropriations grew by 86.2 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).<sup>1</sup>
- 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.<sup>2</sup>

<sup>1</sup> Section 24-20-501, C.R.S.

<sup>2</sup> Section 24-44-103, C.R.S.

## OFFICE OF STATE PLANNING AND BUDGETING (OSPB)

FUNDING SOURCE	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20*
General Fund	\$638,174	\$1,138,174	\$1,138,174	\$1,216,136
Cash Funds	0	500,000	1,154,087	2,254,592
Reappropriated Funds	1,578,088	1,578,088	1,611,338	1,707,479
Federal Funds	0	0	0	0
<b>TOTAL FUNDS</b>	<b>\$2,216,262</b>	<b>\$3,216,262</b>	<b>\$3,903,599</b>	<b>\$5,178,207</b>
Full Time Equiv. Staff	20.5	20.5	20.5	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 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. The legislation also appropriated \$718,412 cash funds from the Youth Pay for Success Initiatives Account within the Pay for Success Contracts Fund to the Office for FY 2018-19 to implement the pilot programs.<sup>3</sup>

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
<b>TOTAL</b>	<b>\$1,390,784</b>	<b>\$2,262,843</b>	<b>\$2,223,421</b>	<b>\$448,480</b>	<b>\$6,325,528</b>

<sup>3</sup> Sections 24-37-403 and 404, C.R.S.

## OFFICE OF ECONOMIC DEVELOPMENT AND INTERNATIONAL TRADE (OEDIT)

FUNDING SOURCE	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20*
General Fund	\$25,533,807	\$20,232,051	\$20,953,461	\$22,293,188
Cash Funds	31,582,100	33,262,434	33,621,274	33,727,191
Reappropriated Funds	85,291	85,291	260,291	260,291
Federal Funds	2,482,722	2,421,338	2,421,338	2,427,164
<b>TOTAL FUNDS</b>	<b>\$59,683,920</b>	<b>\$56,001,114</b>	<b>\$57,256,364</b>	<b>\$58,707,834</b>
Full Time Equiv. Staff	60.3	60.6	60.6	60.6

\*Requested appropriation.

Funding for the Office of Economic Development and International Trade (OEDIT) is primarily from the General Fund (36.6 percent in FY 2018-19) and cash funds (58.7 percent in FY 2018-19). 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.

68.4 percent of the Office's cash fund appropriations for FY 2018-19 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.<sup>4</sup>

LIMITED GAMING TAX REVENUE TRANSFERS TO OEDIT PER S.B. 13-133	
Travel and Tourism Promotion Fund	\$15,000,000
Advanced Industries	5,500,000
Creative Industries	2,000,000
Film, TV, and Media	500,000
<b>TOTAL</b>	<b>\$23,000,000</b>

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 2017-18, \$9,862,210 was credited to the Advanced Industries Acceleration Cash Fund instead of the General Fund, pursuant to statute added by S.B. 11-047.<sup>5</sup>

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

<sup>4</sup> Section 44-30-701 (2)(a), C.R.S.

<sup>5</sup> 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 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)

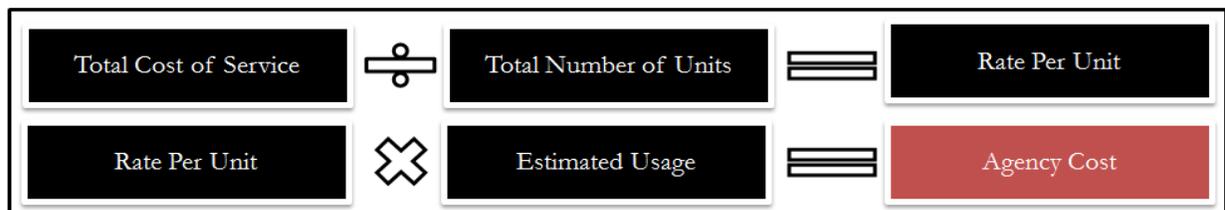
FUNDING SOURCE	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20*
General Fund	\$4,651,457	\$8,418,058	\$10,982,657	\$16,595,289
Cash Funds	1,250,928	5,560,553	5,089,678	5,089,678
Reappropriated Funds	218,319,877	242,818,183	251,784,476	294,489,435
Federal Funds	121,000	121,000	121,000	121,000
<b>TOTAL FUNDS</b>	<b>\$224,343,262</b>	<b>\$256,917,794</b>	<b>\$267,977,811</b>	<b>\$316,295,402</b>
Full Time Equiv. Staff	937.5	963.5	957.5	1,006.7

\*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 times the established rate. OIT bills each agency on a monthly basis for 1/12<sup>th</sup> 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 increases, 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.

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 2019-20 for comparison.

APPROPRIATIONS TO OIT FOR CBMS (REAPPROPRIATED FUNDS)						
FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20*
\$41,330,303	\$64,996,580	\$30,529,339	\$53,026,031	\$60,743,224	\$61,868,613	\$67,406,882

\*Requested appropriation.

## SUMMARY: FY 2018-19 APPROPRIATION & FY 2019-20 REQUEST

GOVERNOR - LIEUTENANT GOVERNOR - STATE PLANNING AND BUDGETING						
	TOTAL FUNDS	GENERAL FUND	CASH FUNDS	REAPPROPRIATED FUNDS	FEDERAL FUNDS	FTE
<b>FY 2018-19 APPROPRIATION:</b>						
HB 18-1322 (Long Bill)	\$346,224,463	\$39,708,812	\$47,171,431	\$252,576,945	\$6,767,275	1,100.5
Other legislation	5,794,834	2,631,188	718,412	2,445,234	0	1.0
<b>TOTAL</b>	<b>\$352,019,297</b>	<b>\$42,340,000</b>	<b>\$47,889,843</b>	<b>\$255,022,179</b>	<b>\$6,767,275</b>	<b>1,101.5</b>
<b>FY 2019-20 REQUESTED APPROPRIATION:</b>						
FY 2018-19 Appropriation	\$352,019,297	\$42,340,000	\$47,889,843	\$255,022,179	\$6,767,275	1,101.5
<b>COLORADO ENERGY OFFICE</b>						
R1 (CEO) EV grant fund spending authority increase	723,204	0	723,204	0	0	0.0
<b>OFFICE OF THE LIEUTENANT GOVERNOR</b>						
R1 (LG) Colorado health IT roadmap operating	2,008,154	0	0	2,008,154	0	2.7
R2 (LG) State Innovation Model Office extension	202,434	202,434	0	0	0	1.5
R3 (LG) Administration line item increase	75,000	75,000	0	0	0	1.3
<b>OFFICE OF ECONOMIC DEVELOPMENT AND INTERNATIONAL TRADE</b>						
R1 (OEDIT) Colorado Film Office increase	1,250,000	1,250,000	0	0	0	0.0
R2 (OEDIT) Minority Business Office increase	25,000	0	25,000	0	0	0.0
<b>OFFICE OF INFORMATION TECHNOLOGY</b>						
R1 (OIT) Essential database support	936,776	0	0	936,776	0	8.0
R2 (OIT) Securing IT operations	11,857,490	0	0	11,857,490	0	9.0
R3 (OIT) Operations and administration center relocation	5,705,593	5,705,593	0	0	0	0.0
R4 (OIT) Application refresh and consolidation	800,700	0	0	800,700	0	0.0
R5 (OIT) Optimize self-service capabilities	333,426	0	0	333,426	0	0.0
R6 (OIT) Enterprise data integration services	3,139,756	0	0	3,139,756	0	2.0
R7 (OIT) Agency IT staff technical adjustment	144,342	0	0	144,342	0	1.0
R8 (OIT) CBMS PEAK	3,410,566	0	0	3,410,566	0	0.0
R9 (OIT) Lottery IT staff consolidation	1,253,065	0	0	1,253,065	0	13.0
<b>OTHER CHANGES</b>						
Centrally appropriated line items	10,228,430	479,243	323,327	9,334,309	91,551	0.0
Non-prioritized request items	10,086,367	68,367	0	10,018,000	0	16.2
Annualize prior year budget actions	1,455,472	1	64,325	1,391,146	0	0.0
Annualize prior year legislation	795,862	(92,004)	1,046,610	(163,004)	4,260	0.9
Indirect cost assessment	62,399	(222,585)	23,794	233,089	28,101	0.0
<b>TOTAL</b>	<b>\$406,513,333</b>	<b>\$49,806,049</b>	<b>\$50,096,103</b>	<b>\$299,719,994</b>	<b>\$6,891,187</b>	<b>1,157.1</b>
<b>INCREASE/(DECREASE)</b>	<b>\$54,494,036</b>	<b>\$7,466,049</b>	<b>\$2,206,260</b>	<b>\$44,697,815</b>	<b>\$123,912</b>	<b>55.6</b>
Percentage Change	15.5%	17.6%	4.6%	17.5%	1.8%	5.0%

## COLORADO ENERGY OFFICE

**R1 (CEO) EV GRANT FUND SPENDING AUTHORITY INCREASE:** The request includes an increase of \$723,204 cash funds from the Electric Vehicle Grant Fund. Pursuant to statute,<sup>6</sup> in addition to other vehicle registration fees, electric vehicle owners must pay a \$50 vehicle registration fee. \$30 of this additional fee is transmitted to the Highway Users Trust Fund and \$20 is transmitted to the Colorado Energy Office's Electric Vehicle Grant Fund. Money in the Electric Vehicle Grant Fund may be used to install recharging stations for electric vehicles via grants made to state agencies, public universities, public transit agencies, local governments, landlords of multi-family apartment buildings, private nonprofit or for-profit corporations, and the unit owners' associations of common interest communities.<sup>7</sup> Grants for the installation of charging stations are awarded in three funding rounds each year. In the first round of grants in FY 2018-19, the agency received applications for \$573,000, which is 72 percent of the total funding requests received in three funding rounds in FY 2017-18.

The Office's FY 2018-19 appropriation includes cash funds spending authority in the amount of \$313,000 from the Electric Vehicle Grant Fund. Based on market growth scenarios of electric vehicles, including projections from the U.S. Department of Energy's Energy Information Administration, the agency believes that it will receive more revenue for use in FY 2019-20 than the spending authority included in the FY 2018-19 Long Bill. As a result, the request includes an increase of \$723,204 cash funds spending authority, from \$313,000 to \$1,036,204, for FY 2019-20 to ensure the Office is able to use the fee revenue paid by electric vehicle drivers to benefit those drivers.

## OFFICE OF THE LIEUTENANT GOVERNOR

**R1 (LG) COLORADO HEALTH IT ROADMAP OPERATING:** The request includes an increase of \$2,008,154 reappropriated funds and 2.7 FTE transferred from the Department of Health Care Policy and Financing to the Office of the Lieutenant Governor's Office of eHealth Innovation to support the operating costs associated with implementing the Colorado Health IT Roadmap (note, the Department of Health Care Policy and Financing's FY 2019-20 budget submittal includes a corresponding request to transfer \$2,008,154 total funds, including \$1,011,017 General Fund, to the Office of the Lieutenant Governor for this purpose).

The Colorado Health IT Roadmap is a three to five-year plan providing direction for health information technology investments in the public and private sectors. For FY 2018-19, the information technology section of the capital construction budget included an appropriation of \$6,605,000 total funds, including \$1,875,500 General Fund, to begin implementing the first phase of initiatives outlined in the Roadmap. For FY 2019-20, the Office requests \$11,508,333 total funds, including \$1,150,833 General Fund, in the information technology section of the capital construction budget for the second phase of initiatives outlined in the Roadmap. The operating budget request for \$2,008,154 total funds described here represents the appropriations needed to support the operations and maintenance of the capital construction project. The operating expenses include staffing costs associated with the Office of eHealth Innovation, contract costs for project managers, contract costs for system integration, hosting fees, and infrastructure purchases.

*For more information on this request, see staff's briefing issue in this document entitled "Capital Construction Information Technology Projects."*

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<sup>6</sup> Section 42-3-304 (25)(a), C.R.S.

<sup>7</sup> Section 24-38.5-103 (1)(a), C.R.S.

**R2 (LG) STATE INNOVATION MODEL OFFICE EXTENSION:** The request includes an increase of \$202,434 General Fund and 1.5 FTE for the Office of the Lieutenant Governor to retain three current staff members for six months that are currently funded with money from the U.S. Department of Health and Human Services' Centers for Medicare and Medicaid Services to work on the Colorado State Innovation Model (SIM) and the Transforming Clinical Practice Initiative (TCPI). Federal funding for these positions expires in July (SIM) and September (TCPI) 2019. By extending a small group of staff into the first half of FY 2019-20, the Office indicates that it will be able to close-out its work and transition associated duties to the new administration.

The Centers for Medicare and Medicaid Services provided Colorado with \$76 million federal funds to improve population health and value-based care. \$65 million came to Colorado through the Centers' SIM initiative, which partners with states to advance multi-payer health care payment and delivery system reform models. \$11 million came to the state through the Centers' TCPI program, which aims to provide technical assistance to help equip clinicians with tools, information, and network support needed to improve quality of care, increase patients' access to information, and spend health care money more wisely.

**R3 (LG) ADMINISTRATION LINE ITEM INCREASE:** The request includes an increase of \$75,000 General Fund and 1.3 FTE to fully fund the four positions in the Office of the Lieutenant Governor. Currently, the Office is staffed by the following: Lieutenant Governor, Chief of Staff, Deputy Chief of Staff, and Executive Assistant. The appropriation supporting these positions is \$271,000 and 2.7 FTE. This appropriation covers a portion of the total personal services costs (\$321,000) and does not include any funding for operating expenses. In absence of funding to cover personal services and operating costs, the Office uses funds appropriated to other agencies in the Office of the Governor. This request seeks \$50,000 General Fund to cover the Office's four staff positions without using funds appropriated to other agencies for other purposes, \$25,000 General Fund for operating expenses, and 1.3 FTE to true-up the appropriation to show the actual number of staff (4.0 FTE).

#### OFFICE OF ECONOMIC DEVELOPMENT AND INTERNATIONAL TRADE

**R1 (OEDIT) COLORADO FILM OFFICE INCREASE:** The request includes an increase of \$1,250,000 General Fund for the Colorado Office of Film, Television, and Media to provide additional financial incentives for production-related expenses incurred in Colorado. Pursuant to statute,<sup>8</sup> the incentive program is a cash rebate, providing up to a 20 percent rebate to eligible productions. To be eligible, a Colorado production company must have qualified local expenditures of at least \$100,000 and an out-of-state production company must have at least \$1.0 million in qualified local expenditures, except for television commercials or video games, which have a requirement of \$250,000 in qualified local expenditures. Productions must hire a workforce comprised of at least 50.0 percent Colorado residents. The FY 2018-19 appropriation for the operation of the Office and film incentives is \$1,500,000 (\$750,000 General Fund and \$750,000 cash funds from limited gaming tax revenue).

Note, the film incentive program was audited by the Office of the State Auditor in 2017. Subsequently, the Legislative Audit Committee sponsored S.B. 18-103 (Issuance Of Performance-based Incentives For Film) to strengthen the requirements necessary to earn performance-based incentives for film production activities in the state. Specifically, the bill requires a production company that seeks incentives to have been engaged in other projects within Colorado for at least 12 months prior to

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<sup>8</sup> Section 24-48.5-116, C.R.S.

applying for an incentive, indicates that the Office may not issue an incentive unless the production company and the Office have entered into a contract in accordance with the procurement code, and requires production companies to provide, through a certified public accountant, proof of qualified local expenditures and proof that the company hired the necessary workforce.

**R2 (OEDIT) MINORITY BUSINESS OFFICE INCREASE:** The request includes an increase of \$25,000 cash funds from the Minority Business Fund to support initiatives of the Minority Business Office. The Office is tasked with promoting the business development of new and existing minority businesses in coordination with state economic development activities. Pursuant to statute,<sup>9</sup> the director of the agency may receive funds from the private sector for the purposes of conducting or implementing projects and other necessary operations of the Office. This money is placed in the Minority Business Fund. Money in the Fund is subject to annual appropriation by the General Assembly. The Office's FY 2018-19 appropriation includes cash funds spending authority in the amount of \$25,000 from the Fund.

The Minority Business Office puts on an annual conference, now in its 10th year, called the Advance Colorado Procurement Expo where businesses participate in a day-long event focused on state and local government procurement. The agency collects revenue from the Expo and uses the money to pay for the associated venue costs, printed materials, and other expenses. The amount of revenue that is collected through the event is greater than \$25,000. The amount of expenses to put on the event are greater than \$25,000, as well. In the absence of spending authority beyond \$25,000 from the Fund, the Office uses General Fund to cover the expenses that are greater than \$25,000. In recent fiscal years, this balance has grown as high as \$47,319. The request put forth by the Office seeks to increase spending authority from the Fund from \$25,000 to \$50,000 to cover the costs of the Expo with cash funds rather than General Fund.

#### OFFICE OF INFORMATION TECHNOLOGY

**R1 (OIT) ESSENTIAL DATABASE SUPPORT:** The request includes an increase of \$936,776 reappropriated funds transferred from state agencies to the Office and 8.0 FTE to augment the database services team (17.0 FTE) with additional staff to support non-production databases (development, test, and staging). Currently, the database services team only has resources to support production databases, which leaves non-production databases vulnerable to security breaches. Additionally, the current staffing level does not allow for the timely resolution of issues that arise with production databases.

**R2 (OIT) SECURING IT OPERATIONS:** The request includes an increase of \$11,857,490 reappropriated funds transferred from state agencies to the Office and 9.0 FTE to accelerate the pace at which the Secure Colorado cybersecurity strategic plan, created by OIT'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. The Office advises that accelerating the implementation of Secure Colorado and adding new functionality will significantly reduce and mitigate attacks like the Department of Transportation cybersecurity incident. Specifically, the funding would be allocated as follows:

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<sup>9</sup> Section 24-49.5-103 (2), C.R.S.

R2 (OIT) SECURING IT OPERATIONS PROPOSED ALLOCATION OF FUNDS		
	FY 2019-20	FY 2020-21 AND BEYOND
Current Secure Colorado Initiatives	\$4,128,196	\$1,480,369
East-West Traffic (network segmentation)	3,332,653	778,953
Public Cloud (architecture, engineering, and security)	739,205	696,878
Identity and Access Management (proper people have proper access)	1,890,901	1,080,901
Security Impacts on OIT Infrastructure Teams (additional staff)	*1,766,535	*1,026,535
<b>Total</b>	<b>\$11,857,490</b>	<b>\$5,063,636</b>

\*Amount includes \$407,000 for salary adjustments to help retain critical security staff already employed by OIT.

**R3 (OIT) OPERATIONS AND ADMINISTRATION CENTER RELOCATION:** The request includes an increase of \$5,705,593 to relocate the Office’s operations and central administrative center, and its 337.0 FTE, from its current location at the Pearl Plaza building at 601 E. 18th Ave. in Denver to an undetermined new location in the downtown Denver area. The Office indicates that the move is needed to obtain the quality of space required to attract and retain qualified staff that allow existing teams to perform efficiently to support the information technology needs of state agencies. The requested money would be used to pay for the build-out costs of the new leased space, moving expenses from Pearl Plaza to the new location, and fees associated with terminating the existing lease at Pearl Plaza (the current lease runs through March 2022).

**R4 (OIT) APPLICATION REFRESH AND CONSOLIDATION:** The request includes an increase of \$800,700 reappropriated funds transferred from state agencies to the Office to continually consolidate, modernize, and maintain the state’s aging applications. The Office points out that state agencies have created a large number of information technology applications in response to evolving business needs and the underlying hardware and software supporting many of these applications have become obsolete, necessitating modernization or consolidation into existing technologies supported by the Office.

**R5 (OIT) OPTIMIZE SELF-SERVICE CAPABILITIES:** The request includes \$333,426 reappropriated funds transferred from state agencies to the Office to augment service desk capabilities with artificial intelligence and chatbots to provide basic support services to state agencies. The Office states that 62 percent of state agency customer interactions with its service desk to resolve or troubleshoot an issue are conducted live by an OIT employee. It is envisioned that implementing artificial intelligence and chatbots will decrease issue resolution time and allow service desk employees to focus on issues with greater complexity.

**R6 (OIT) ENTERPRISE DATA INTEGRATION SERVICES:** The request includes an increase of \$3,139,756 in reappropriated funds transferred from state agencies to the Office and 2.0 FTE to enter into a statewide enterprise license agreement (ELA) with a vendor for Enterprise Service Bus technologies. The requested staff increase of 2.0 FTE would be used for Enterprise Service Bus implementation support services. 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.

The Office currently implements Enterprise Service Bus technology for a variety of projects in the Department of Human Services and the Department of Transportation, as well as the multi-agency Colorado Benefits Management System and marijuana data coordination initiative. OIT argues that Departments have increased their use of the Enterprise Service Bus technology to a level approaching

the point when a statewide enterprise license agreement (ELA) is financially advantageous for current usage and future needs. On the staffing issue, OIT expresses that it has absorbed the workload increase for Enterprise Service Bus technology thus far, but it is unable to meet future demand within existing staff resources.

**R7 (OIT) AGENCY IT STAFF TECHNICAL ADJUSTMENT:** The request includes an increase of \$144,342 in reappropriated funds and 1.0 FTE to convert 1.0 FTE term-limited project manager supporting the Department of Transportation to a full-time OIT employee due to the Department's ongoing need for project management services. This request does not increase appropriations for the Department of Transportation, as the agency has been paying OIT through an inter-agency agreement for this project management function. Note, OIT's Project Management Office consists 52.0 FTE that are a mixture of full-time OIT staff (23.0 FTE) and temporary, term-limited staff that are funded via inter-agency agreements for specific state agency projects (29.0 FTE).

*For more information on the performance of OIT's Project Management Office, see staff's briefing issue in this document entitled "Improving the State's Delivery of Information Technology Services."*

**R8 (OIT) CBMS PEAK:** The request includes an increase of \$3,410,566 reappropriated funds transferred from the Department of Health Care Policy and Financing (HCPF), the Department of Human Services (CDHS), and the Department of Public Health and Environment (CDPHE) for a variety of changes associated with the implementation of the Colorado Benefits Management System (CBMS) and the Program Eligibility and the Application Kit (PEAK). CBMS and PEAK are two components of a computer 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. CBMS/PEAK is developed and maintained by the state for use by county social service organizations and various medical assistance. Funding for the operation and maintenance of the system is annually appropriated to HCPF, CDHS, and CDPHE. Appropriations are subsequently transferred to the Governor's Office of Information Technology (OIT) to pay for the employees and operating expenses supporting CBMS.

In collaboration with its federal partners (U.S. Department of Agriculture and U.S. Department of Health and Human Services), HCPF, CDHS, CDPHE, and OIT enlisted the services of a vendor to explore alternatives to using random moment sampling (periodic worker polling) that would more accurately allocate costs for the operations and maintenance of CBMS/PEAK to departments and programs. This endeavor determined that a more equitable model is to assign costs based on detailed service usage statistics and updated cost centers rather than random moment sampling. The agencies agreed to implement this new cost allocation methodology by the start of FY 2018-19 on July 1, 2018. Subsequently, OIT submitted an interim supplemental to align the FY 2018-19 appropriation with the forecasted costs for departments and programs using the newly adopted cost allocation method for the costs associated with CBMS/PEAK. The Joint Budget Committee approved this request at its September 20<sup>th</sup> meeting, which resulted in total funds net zero adjustment, including a decrease of \$11,751,089 General Fund. Importantly, the new method allocates more of the costs for CBMS/PEAK to HCPF. HCPF is able to receive a higher federal financial participation rate for CBMS/PEAK costs than CDHS, which contributes to this General Fund savings.

For FY 2019-20, OIT indicates that the new allocation method will yield a savings of \$13.6 General Fund across HCPF, CDHS, and CDPHE. This decision item asks to use a portion this savings, along

with additional federal funds secured through HCPF's ability to receive a higher federal financial participation than CDHS, for a series of improvements associated with system security, electronic services for clients, data analytics and reporting, web-based tools, and training capacity.

**R9 (OIT) LOTTERY IT STAFF CONSOLIDATION:** The request includes an increase of \$1,253,065 reappropriated funds and 13.0 FTE to transfer employees from the Department of Revenue's Lottery Division to the Office. These employees were not consolidated previously after the passage of S.B. 05-155 (Centralize IT Management In OIT) and both the Office and Department of Revenue agree that the employees should reside in OIT. Neither agency anticipates that this transition will negatively impact the information technology services currently supporting the Lottery Division.

OTHER CHANGES

**CENTRALLY APPROPRIATED LINE ITEMS:** The request includes an increase of \$10,228,430 total funds, including \$479,243 General Fund, for adjustments to centrally appropriated line items for the following: state contributions for health, life, and dental benefits; merit pay; salary survey; short-term disability; supplemental state contributions to the Public Employees' Retirement Association (PERA) pension fund; shift differential; workers' compensation; legal services; payment to risk management and property funds; Capitol complex leased space; Payments to OIT; and CORE. The following table summarizes each requested centrally appropriated line item change.

CENTRALLY APPROPRIATED LINE ITEMS						
	TOTAL FUNDS	GENERAL FUND	CASH FUNDS	REAPPROPRIATED FUNDS	FEDERAL FUNDS	FTE
Payments to OIT adjustment	\$5,249,867	(\$103,784)	\$0	\$5,353,651	\$0	0.0
Merit pay adjustment	2,828,356	250,947	130,220	2,393,659	53,530	0.0
PERA Direct Distribution	2,540,398	218,210	110,549	2,166,486	45,153	0.0
Payment to risk management / property funds adjustment	42,699	12,277	0	30,422	0	0.0
Salary survey adjustment	21,401	3,489	2,326	15,586	0	0.0
Leased space adjustment	20,471	20,471	0	0	0	0.0
Health, life, and dental adjustment	7,592	152,511	19,260	(146,381)	(17,798)	0.0
PERA SAED adjustment	(93,673)	30,939	30,360	(151,880)	(3,092)	0.0
PERA AED adjustment	(93,448)	30,939	30,585	(151,880)	(3,092)	0.0
Capitol Complex leased space adjustment	(76,987)	(32,622)	0	(44,365)	0	0.0
Workers' compensation adjustment	(72,800)	(6,425)	0	(66,375)	0	0.0
Legal services adjustment	(61,895)	(98,906)	0	19,009	18,002	0.0
Shift differential adjustment	(55,148)	0	0	(55,148)	0	0.0
CORE adjustment	(24,858)	0	(1,085)	(22,682)	(1,091)	0.0
Short-term disability adjustment	(3,545)	1,197	1,112	(5,793)	(61)	0.0
<b>TOTAL</b>	<b>\$10,228,430</b>	<b>\$479,243</b>	<b>\$323,327</b>	<b>\$9,334,309</b>	<b>\$91,551</b>	<b>0.0</b>

**NON-PRIORITIZED REQUEST ITEMS:** The request includes an increase of \$10,086,367 total funds, including \$68,367 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.

NON-PRIORITIZED REQUEST ITEMS						
	TOTAL FUNDS	GENERAL FUND	CASH FUNDS	REAPPROPRIATED FUNDS	FEDERAL FUNDS	FTE
DOC (R2) DeCORuM maintenance and support	\$2,796,520	\$0	\$0	\$2,796,520	\$0	0.0
CDHS (R13) Colorado Trails	2,452,920	0	0	2,452,920	0	0.0

NON-PRIORITIZED REQUEST ITEMS						
	TOTAL FUNDS	GENERAL FUND	CASH FUNDS	REAPPROPRIATED FUNDS	FEDERAL FUNDS	FTE
HCPF (R12) Medicaid enterprise operations	1,189,470	0	0	1,189,470	0	3.0
HCPF (R10) Transform customer experience	1,120,000	0	0	1,120,000	0	0.0
HCPF (R6) Local administration transformation	821,240	0	0	821,240	0	0.0
DOR (R1) GenTax support enhancements	681,477	0	0	681,477	0	6.0
CDLE (R1) UIM operating	601,509	0	0	601,509	0	4.5
CDHS (R11) Crisis services	351,075	0	0	351,075	0	2.7
OIT (R2) Securing IT operations	55,161	55,161	0	0	0	0.0
OIT (R4) Application refresh and consolidation	10,999	10,999	0	0	0	0.0
DPA (R4) Annual fleet vehicle request	3,923	134	0	3,789	0	0.0
OIT (R5) Optimize self-service capabilities	1,551	1,551	0	0	0	0.0
OIT (R1) Essential database support	522	522	0	0	0	0.0
<b>TOTAL</b>	<b>\$10,086,367</b>	<b>\$68,367</b>	<b>\$0</b>	<b>\$10,018,000</b>	<b>\$0</b>	<b>16.2</b>

**ANNUALIZE PRIOR YEAR BUDGET ACTIONS:** The request includes an increase of \$1,455,472 total funds, including \$1 General Fund, for adjustments related to prior year budget actions, primarily decision items. The following table summarizes each annualization.

ANNUALIZE PRIOR YEAR BUDGET ACTIONS						
	TOTAL FUNDS	GENERAL FUND	CASH FUNDS	REAPPROPRIATED FUNDS	FEDERAL FUNDS	FTE
FY 2018-19 OIT CBMS PEAK adjustment	\$1,306,463	\$0	\$0	\$1,306,463	\$0	0.0
FY 2018-19 OIT Microsoft enterprise license agreement	409,096	0	0	409,096	0	0.0
FY 2018-19 OIT Voice and data services	328,386	0	0	328,386	0	0.0
FY 2018-19 OSPB 2% reduction	64,325	0	64,325	0	0	0.0
FY 2018-19 DOR Drives system	32,585	0	0	32,585	0	0.0
FY 2018-19 OIT HRIS timekeeping savings	8,055	0	0	8,055	0	0.0
FY 2018-19 CDPS Sex Offender Management Board	(361,424)	0	0	(361,424)	0	0.0
FY 2018-19 HCPF BUS continuation	(230,040)	0	0	(230,040)	0	0.0
FY 2017-18 Department of Revenue telephone replacement	(67,500)	0	0	(67,500)	0	0.0
FY 2018-19 DOLA Peace Officer grant program	(23,825)	0	0	(23,825)	0	0.0
Prior year salary survey	(5,946)	1	0	(5,947)	0	0.0
FY 2018-19 DNR application development and support	(4,703)	0	0	(4,703)	0	0.0
<b>TOTAL</b>	<b>\$1,455,472</b>	<b>\$1</b>	<b>\$64,325</b>	<b>\$1,391,146</b>	<b>\$0</b>	<b>0.0</b>

**ANNUALIZE PRIOR YEAR LEGISLATION:** The request includes an increase of \$795,862 total funds, including a decrease of \$92,004 General Fund, for adjustments related to prior year legislation. The following table summarizes each annualization.

ANNUALIZE PRIOR YEAR LEGISLATION						
	TOTAL FUNDS	GENERAL FUND	CASH FUNDS	REAPPROPRIATED FUNDS	FEDERAL FUNDS	FTE
H.B. 18-1323 (Pay For Success Contracts Pilot Program Funding)	\$1,036,180	\$0	\$1,036,180	\$0	\$0	0.0
SB 18-200 (Modifications To PERA Public Employees' Retirement Association To Eliminate Unfunded Liability)	231,399	20,161	10,430	196,548	4,260	0.0

ANNUALIZE PRIOR YEAR LEGISLATION						
	TOTAL FUNDS	GENERAL FUND	CASH FUNDS	REAPPROPRIATED FUNDS	FEDERAL FUNDS	FTE
H.B. 18-1430 (State Agency Long-range Financial Plan)	77,962	77,962	0	0	0	0.9
S.B. 18-086 (Cyber Coding Cryptology For State Records)	(114,830)	(114,830)	0	0	0	0.0
S.B. 18-150 (Voter Registration Individuals Criminal Justice System)	(89,600)	0	0	(89,600)	0	0.0
H.B. 18-1017 (Psychology Interjurisdictional Compact)	(77,000)	0	0	(77,000)	0	0.0
H.B. 17-1057 (Interstate Physical Therapy Licensure Compact)	(74,000)	0	0	(74,000)	0	0.0
H.B. 14-1326 (Tax Incentives For Alternative Fuel Trucks)	(70,000)	(70,000)	0	0	0	0.0
H.B. 18-1267 (Income Tax Credit For Retrofitting Home For Health)	(65,508)	0	0	(65,508)	0	0.0
H.B. 18-1299 (Electronic Filing Title Registration Motor Vehicle)	(16,590)	0	0	(16,590)	0	0.0
H.B. 18-1042 (Private Interstate Commercial Vehicle Registration)	(16,016)	0	0	(16,016)	0	0.0
H.B. 18-1256 (Sunset Continue Civil Rights Division And Commission)	(10,000)	0	0	(10,000)	0	0.0
H.B. 18-1339 (Background Checks Employees Access Federal Tax Information)	(5,297)	(5,297)	0	0	0	0.0
S.B. 18-036 (Relocate Title 24 Tobacco Sales Minors To Title 44)	(4,630)	0	0	(4,630)	0	0.0
H.B. 17-1326 (Justice Reinvestment Crime Prevention Initiative)	(3,296)	0	0	(3,296)	0	0.0
H.B. 17-1313 (Civil Forfeiture Reform)	(2,912)	0	0	(2,912)	0	0.0
<b>TOTAL</b>	<b>\$795,862</b>	<b>(\$92,004)</b>	<b>\$1,046,610</b>	<b>(\$163,004)</b>	<b>\$4,260</b>	<b>0.9</b>

**INDIRECT COST ASSESSMENT:** The request includes an increase of \$62,399 total funds, including a decrease of \$222,585 General Fund, 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
Colorado Energy Office	\$28,101	\$0	\$0	\$0	\$28,101	0.0
Office of Economic Development	23,794	0	23,794	0	0	0.0
Office of Information Technology	10,504	0	0	10,504	0	0.0
Office of the Governor	0	(222,585)	0	222,585	0	0.0
<b>TOTAL</b>	<b>\$62,399</b>	<b>(\$222,585)</b>	<b>\$23,794</b>	<b>\$233,089</b>	<b>\$28,101</b>	<b>0.0</b>

## ISSUE: IMPROVING THE STATE'S DELIVERY OF INFORMATION TECHNOLOGY SERVICES

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. Several of the recommendations may require legislative action by the Joint Budget Committee and/or other members of the General Assembly to implement.

### 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.
- BerryDunn concluded that there are improvements to be made in several areas to accomplish the goals of centralization, including several of interest to the Joint Budget Committee, such as infrastructure management responsibility, identifying cost savings and cost avoidance associated with information technology projects and services, state agency billing consistency, and the role of information technology projects in achieving state agency efficiency gains.
- The consultant also noted the need for a strategic plan for using consultants, vendors, or other organizations, like the Statewide Internet Portal Authority, in delivering information technology services, a strategic plan for comprehensive communications and stakeholder management plan to increase consumer satisfaction, and a strategic plan for engaging citizens and businesses using information technology.
- The specific recommendations provided by BerryDunn to address its findings would take a series of statutory, budgetary, and internal process changes to implement.

### RECOMMENDATION

Staff recommends that the Joint Budget Committee consider a variety of statutory and budgetary changes to implement the recommendations put forth by BerryDunn to improve both the internal and external delivery of information technology services by OIT.

## DISCUSSION

### *Background*

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 contracted with BerryDunn to conduct the evaluation. 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. The report was submitted in November and presented to the Legislative Audit Committee on December 4<sup>th</sup>. The following sections represent a summary of the findings and recommendations put forth by the vendor. Note, staff's summary of the evaluation does not encompass all findings and recommendations offered by the consultant. Rather, the summary includes those items of specific interest to the Joint Budget Committee and/or those items that the Committee may wish to address through legislative action. At the conclusion of this briefing issue, staff has included a series of recommendations for the Joint Budget Committee to consider to implement the BerryDunn's advice.

*Consultant Findings and Recommendations: (1) Achieving Centralization Goals*

Senate Bill 08-155 consolidated the responsibility for information technology resources, procurement, and service delivery for most of the state's executive branch agencies in OIT. BerryDunn evaluated the state's performance in meeting centralization goals across five areas: human resources, technology infrastructure, savings and efficiencies, billing for services, and the use of consultants, vendors, or organizations, such as the Statewide Internet Portal Authority. The firm's findings in each of these five areas are summarized below.

Human Resources

The consultant found that 84.9 percent of information technology professionals currently exist within OIT. The remaining 15.1 percent are mostly located in the Departments of Corrections, Public Safety, and Transportation. The primary reason these employees remain in state agencies is because their defined job classification is not sufficient to determine if they are doing information technology work. BerryDunn recommends that OIT improve its standards for non-classified information technology positions, create new position classifications to further delineate and clarify positional responsibilities, and update certain classifications to further delineate and clarify positional responsibilities. These recommendations do not require legislative action and OIT indicates that it is working with the Department of Personnel to implement the recommendations by June 2019.

Technology Infrastructure

The consultant found that the transfer of information technology infrastructure has not occurred. Specifically, "from a budget and accounting perspective, the funding and spending authority for IT assets continue to exist among the agencies, not OIT. Therefore, OIT carries the responsibility of maintaining and operating the equipment, but all the funding and decision-making are retained with the agencies." BerryDunn recommends that the management and tracking of information technology assets would be improved by transferring financial control of infrastructure to OIT, including purchase, maintenance and support, refresh, and depreciation functions. The Office agrees with this recommendation and indicates it will "work with the Governor's Office of State Planning and Budgeting and the Joint Budget Committee, as appropriate, to move full financial control over information technology assets to OIT." This recommendation requires legislative action (see recommendation "A" in the "Staff Recommendations" section of this briefing issue for more information on potential legislative actions).

Savings and Efficiencies

The consultant found that OIT has challenges in determining and quantifying how its services have provided savings and efficiencies to the state. BerryDunn states that "the bulk of what OIT has documented as savings is actually cost avoidance due to the procurement process, as defined by OIT's standard, rather than true savings due to consolidation or new technology implementations." Additionally, it was found that some state agencies lack confidence in the cost avoidance figures that OIT uses to justify increased costs to deliver information services.

BerryDunn recommends that OIT revise its annual report to separate cost savings from cost avoidance, ensure that its cost-benefit analysis activities include pre-implementation baseline costs and post-implementation costs, and improve its communications to state agencies on the rationale for technology projects. OIT agrees with these recommendations. While these recommendations do not require legislative, the Joint Budget Committee may wish to put forth statutory parameters to make sure that cost savings and cost avoidance data are collected and reported in a manner that provides

clarity to the General Assembly on project benefits (see recommendation “B” in the “Staff Recommendations” section of this briefing issue for more information on potential legislative actions).

#### Billing for Services

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.

BerryDunn recommends that OIT clean-up its billing practice by purchasing all information technology infrastructure for state agencies and billing those assets to agencies on a depreciation basis (note, this is related to the “Technology Infrastructure” finding/recommendation previously discussed in this section). This would clearly identify and control the amount of money spent on infrastructure refresh and allow state agencies to have a consistent yearly plan for covering asset replacement costs. As was pointed out above, transferring information technology infrastructure from state agencies to OIT requires legislative action (see recommendation “A” in the “Staff Recommendations” section of this briefing issue for more information on potential legislative actions).

Second, the firm recommends 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. OIT agrees with these recommendations. This recommendation does not require legislative action, however the Joint Budget Committee has a vested interest in data provided on the billing process, as it is used to determine the common policy total costs for information technology services and agency allocations of those costs.

#### Use of Consultants, Vendors, or Organizations, such as the Statewide Internet Portal Authority

The consultant found that OIT has a strategic plan called the OIT Playbook, but it does not (and is not intended to) specify how the Office is to use consultants, vendors, or organizations such as the Statewide Internet Portal Authority. BerryDunn states that the lack of a strategy makes it challenging for the Office “to communicate management’s vision, direction, and plans for using them to support OIT’s mission and business objectives.” The firm recommends that the Office strategically plan for the use of consultants, vendors, or other organizations to centralize state information technology resources.

OIT agrees that small strategic outsourcing is a growing and valuable trend for states and private-sector organizations, but “large-scale outsourcing is not an OIT strategy as such projects are typically not cost effective and do not meet required service levels.” This recommendation may require legislative action if the Joint Budget Committee wishes to provide guidance to the agency on the elements that should be included in strategic plan for engaging consultants, vendors, or organizations such as the Statewide Internet Portal Authority (see recommendation “C” in the “Staff Recommendations” section of this briefing issue for more information on potential legislative actions).

*Consultant Findings and Recommendations: (2) Strategic Plan for Information Technology Projects*

The process for information technology project evaluation, prioritization, and selection is developed by OIT and is detailed in the Project Lifecycle Management Reference Guide Ideation. This document outlines the individuals involved from OIT and state agencies, roles and responsibilities of these individuals, steps to be followed, and forms and tools to be used. The Office then submits a list of projects to the Office of the Governor's Office of State Planning and Budgeting to consider for inclusion in the Governor's budget request submitted to the Joint Budget Committee.

BerryDunn evaluated this process and found that is not wholly effective because "agencies sometimes bypass the OIT-prescribed project evaluation, prioritization, and selection process, or parts of it, such as the cost-benefit-analysis, and select information technology services, products, and vendors and enter into information technology-related contracts without OIT involvement."<sup>10</sup> BerryDunn recommends that OIT improve the process by encouraging state agency leaders to include the Office's Information Technology Directors (OIT employees acting as liaisons to state agencies) in strategic planning activities and senior leadership meetings, soliciting state agency feedback on a regular basis on the process and potential improvements, and defining the differentiation between a technology and a business project and the corresponding roles for OIT and state agencies in these two types of projects. This recommendation requires internal process changes within the executive branch to implement.

Additionally, BerryDunn found the General Assembly's review and reporting processes for executive branch information technology projects are adequate for most projects, but not all. Specifically, the findings show that it is unclear which party is responsible for the success of the project (OIT or the state agency) and how opinions of all project participants (OIT, state agency, vendors, and stakeholders) are summarized into periodic project status updates provided to the General Assembly. BerryDunn recommends that OIT and the Joint Technology Committee clarify the definition of project manager in statute and update the project status reporting requirements to make sure that all project participant opinions are incorporated and that a status is given to stakeholder and policy alignment. OIT agrees with these recommendations and will work with the Joint Technology Committee to implement them.

*Consultant Findings and Recommendations: (3) Interfacing with the Public Using Technology*

Statute dictates that OIT shall "develop and encourage a world wide web-based state government and facilitate the dissemination of information onto the web."<sup>11</sup> BerryDunn evaluated the opportunities the state has to interface with the public through information technology. The firm found that "individual state agencies are primarily responsible for interaction with the public, using OIT (primarily citizen-serving applications) or the Statewide Internet Portal Authority (primarily web pages) as the service delivery partner" and that there are a "number of opportunities to improve its interaction with the public through information technology." Specifically, the findings highlight that:

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<sup>10</sup> House Bill 18-1421 (Procurement Process For Major IT Information Technology Projects), sponsored by the Joint Budget Committee, required several process changes to improve the procurement process for information technology projects. The guiding principle for these changes was to help clarify roles in the procurement process, whereby state agencies define their business needs, the "what," and OIT defines the optimal solutions, the "how." For more information on H.B. 18-1421, see staff's briefing issue in this document entitled "Capital Construction Information Technology Projects."

<sup>11</sup> Section 24-37.5-105 (3)(b), C.R.S.

- No strategic plan exists for citizen and business engagement, 24/7 service availability, or social media;
- No standard processes are in place for soliciting citizen input on interaction satisfaction or needs for additional services or improvements to existing services;
- More than half of the state’s websites are not optimized for mobile devices; and
- The state’s website does not reflect a customer-centric strategy.

The consultant recommends that OIT create a citizen engagement and digital government experience council with state agencies and the Statewide Internet Portal Authority and ask the council to create and implement a statewide strategy “to coordinate, plan, and prioritize citizen and business engagement through information technology across the enterprise.” OIT agrees with this recommendation and will begin reaching out to stakeholders to establish a council.

BerryDunn also recommends that statute be amended to define the roles and responsibilities for OIT, the Statewide Internet Portal Authority, and state agencies in delivery services to citizens using information technology. The Office, however disagrees with this recommendation and believes that its existing statutory authority is sufficient to develop and manage the state’s information technology strategy for citizen engagement. This recommendation may require legislative action if the Joint Budget Committee wishes to provide prescriptive guidance to OIT on how the roles of the Office, state agencies, and the Statewide Internet Portal Authority are defined in interfacing with the public through information technology (see recommendation “D” in the “Staff Recommendations” section of this briefing issue for more information on potential legislative actions).

*Consultant Findings and Recommendations: (4) OIT Relationships with non-Centralized State Agencies*

Senate Bill 08-155 did not require all state agencies to take part in the centralization of state agency information technology resources in OIT. The excluded agencies include the Legislative Branch, Judicial Branch, Department of Law, Department of State, Department of Treasury, and the state-supported institutions of higher education. Additionally, the Department of Education was later excluded through a non-statutory agreement with OIT due to its independent elected board. Non-centralized agencies still receive services from the Office, such as network, voice, and security, and are billed through the common policy and via direct billing, depending on the service provided.

BerryDunn evaluated the working relationship between the Office and these non-centralized agencies and found that there are opportunities to improve these relations. The firm indicates that OIT provides a different level of service to non-centralized agencies than it does to centralized agencies, does not understand the needs and requirements of non-centralized agencies, does not document its service-level agreements with non-centralized agencies, and does not provide non-centralized agencies with billing information in an understandable manner.

The consultant recommends that OIT develop and execute service-level commitments for non-centralized agencies similar to those in place with centralized agencies and assign an existing staff person within the Office to “be the single point of escalation for all non-centralized agencies to assist in managing the customer relationship.” OIT agrees with the recommendations, but indicates that it would require additional funds and staff to implement these strategies. Thus, these recommendations may require legislative action to carry out (see recommendation “E” in the “Staff Recommendations” section of this briefing issue for more information on potential legislative actions).

*Consultant Findings and Recommendations: (5) Consumer Satisfaction Among State Agencies*

Agencies that took part in the centralization of state agency information technology resources in OIT pursuant to S.B. 08-155 represent the majority of the Office's customers. BerryDunn evaluated the working relationship between the Office and the centralized agencies using consumer satisfaction surveys. Using this information, the consultant determined that:

- Consumer satisfaction varies based on the service provided (lowest for project management, procurement, and vendor services and highest for email and phone services);
- Consumer satisfaction, as measured by a variety of metrics, varies greatly by department, and, as a whole, is below the national customer satisfaction benchmark; and
- OIT does not have a communications management plan that explains all of the available communication tools the Office uses, and which of those tools are shared with each customer;

The consultant believes that low customer satisfaction leads to state agencies losing trust and confidence in OIT to provide services and subsequently state agencies not complying with the Office's policies and procedures. To begin solving these issues and consequences, BerryDunn recommends that OIT focus on improving communications to all of its customers by developing a comprehensive communications and stakeholder management plan, implementing the plan, and conducting an annual survey of state agencies on OIT services to gauge if the implementation of the plan is increasing consumer satisfaction. OIT agrees with these recommendations and feels that these steps would complement its existing communications endeavors. These recommendations may require legislative action to carry out (see recommendation "F" in the "Staff Recommendations" section of this briefing issue for more information on potential legislative actions).

Additionally, BerryDunn examined information technology governance as it relates to human resources, technology asset management, and technology billing and its relationship to consumer satisfaction. The firm states that "governance exists to align information technology with business needs, to hold information technology accountable for delivering business value, and to manage information technology risks." Given that alignment, value, risk, and resource management are critical to achieving information technology goals, the organization evaluated the state's information technology governance structure.

The findings of this evaluation indicate that state agencies are not always directly involved in decisions made by OIT that impact their business and their budgets prior to submittal to the legislature for approval and funding. Further, and perhaps related, the percentage of the budget spent by state agencies on delivering services to customers is decreasing while overhead and management costs to deliver services are increasing. Information technology is contributing to this trend, as the cost of information technology projects is not offset by efficiency gains and budgetary savings at the state agency level.

BerryDunn recommends that OIT create a common policy governing board to approve common policy cost, value, risk, and standards prior to proposals submittal to the legislature. The consultant expresses that participation in this board should be required for all centralized agencies and open to all non-centralized agencies. The Office partially agrees with this recommendation. Specifically, OIT agrees that soliciting agency feedback on common policy items prior to finalizing the requests for submittal to the General Assembly is valuable and believes that is already engaging state agencies through a variety of avenues intended to gather opinions. OIT does not, however, agree with

BerryDunn that a formal governing board is necessary. Instead Office prefers to work with the Office of State Planning and Budgeting to explore the option of changing the budget request process for common policy items. Given OIT's difference of opinion with the consultant's recommendation, creating a governing board may require legislative action to implement (see recommendation "G" in the "Staff Recommendations" section of this briefing issue for more information on potential legislative actions).

#### *Staff Recommendations*

Staff recommends that the Joint Budget Committee consider taking the following series of actions to improve the state's provision of information technology to internal and external customers. Note, several of staff's recommendation include sponsoring legislation to make statutory changes. At this time, staff does not have a recommendation on whether these statutory changes should be combined into one bill, separated into discrete bills, or a combination of both approaches.

#### Staff Recommendation "A" (Technology Infrastructure)

Staff recommends that the Joint Budget Committee sponsor legislation requiring the Office of State Planning and Budgeting to include in its FY 2020-21 November 1<sup>st</sup> budget request a decision item to transfer the ownership, and associated funding, of information technology assets from centralized state agencies to OIT. It is staff's opinion, based on prior attempts to accomplish this recommendation in the years since the passage of S.B. 08-155, that transferring information technology assets (and financial control of those assets) to OIT will not occur without a statutory mandate. Staff does not estimate that this legislation would require an appropriation.

#### Staff Recommendation "B" (Savings and Efficiencies)

Staff recommends that the Joint Budget Committee explore the option of sponsoring legislation to define cost savings versus cost avoidance (and the associated cost-benefit-analysis components needed to calculate these figures) as it relates to information technology services and infrastructure and require OIT to submit an annual report to the General Assembly outlining its achieved cost savings and cost avoidances. Staff does not estimate that this legislation would necessitate an appropriation unless the workload to modify the Office's existing reports to satisfy this new requirement is greater than staff envisions.

#### Staff Recommendation "C" (Use of External Entities)

Staff recommends that the Joint Budget Committee explore the option of sponsoring legislation requiring OIT to contract for the creation a strategic plan for the use of consultants, vendors, or organizations like the Statewide Internet Portal Authority. This legislation would require a General Fund appropriation to fund the contract services needed to create the strategic plan.

#### Staff Recommendation "D" (Interfacing with the Public Using Technology)

Staff recommends that the Joint Budget Committee sponsor legislation creating a citizen engagement and digital government experience council that includes OIT, state agencies, and the Statewide Internet Portal Authority and tasking this council with contracting for the creation a strategic plan for how the state will use technology for citizen and business engagement. Additionally, staff recommends that this legislation define the roles and responsibilities of OIT, state agencies, and the Statewide Internet Portal Authority in delivering outward-facing technology services. This legislation would require a General Fund appropriation to fund the contract services needed to create the strategic plan.

Staff Recommendation “E” (OIT Relationships with non-Centralized State Agencies)

Staff recommends that the Joint Budget Committee explore the option of providing an appropriation to OIT in the FY 2019-20 Long Bill to add a staff person in charge of managing the organization’s relationship with non-centralized agencies that consume OIT services, including serving as the single point of escalation for all OIT-related service issues occurring in non-centralized agencies.

Staff Recommendation “F” (Consumer Satisfaction Among State Agencies)

Staff recommends that the Joint Budget Committee sponsor legislation requiring OIT to contract for the creation a communications and stakeholder management plan for more effectively engaging its state agency customers. Additionally, staff recommends that the legislation require the Office to annually survey state agencies on OIT services to gauge if the implementation of the communications and stakeholder management plan is increasing consumer satisfaction and submit the results to the Joint Budget Committee and the Joint Technology Committee. This legislation would require a General Fund appropriation to fund the contract services needed to create the communications and stakeholder management plan.

Staff Recommendation “G” (Governance)

Staff recommends that the Joint Budget Committee explore the option of sponsoring legislation creating a common policy governing board to approve information technology common policy changes prior to submittal to the legislature for funding. Staff does not estimate that this legislation would require an appropriation.

## ISSUE: CAPITAL CONSTRUCTION INFORMATION TECHNOLOGY PROJECTS

For FY 2019-20, funding for 15 capital construction information totaling \$36.8 million total funds, including \$21.8 General Fund, was submitted to the Joint Technology Committee and the Joint Budget Committee for consideration. This represents an increase of 19.2 percent total funds and an increase of 43.4 percent General Fund compared to FY 2018-19 appropriations. Additionally, the Governor's Office of Information Technology is implementing several process changes to improve the procurement process for information technology projects, pursuant to H.B. 18-1421.

### SUMMARY

- Senate Bill 14-169 (Office Of Information Technology Reports To GA) requires the Governor's Office of Information Technology (OIT) and the Office of State Planning and Budgeting to prioritize information technology budget requests from state executive branch agencies prior to submittal to the General Assembly for consideration.
- House Bill 14-1395 (Information Technology Budget Requests) requires the Joint Technology Committee to review each of these prioritized projects submitted as capital construction requests and report back to the Joint Budget Committee with its own prioritized list of recommendations by February 15<sup>th</sup>.
- Executive branch agencies submitted eight prioritized proposals for capital construction information technology projects for FY 2019-20 tallying to \$27.7 million total funds, including \$12.9 million General Fund. The requested projects represent a total funds decrease of 10.2 percent, including a General Fund decrease of 15.5 percent, compared to the FY 2018-19 appropriations for projects.
- After not receiving any funding for capital construction information technology projects for FY 2018-19, the Colorado Commission on Higher Education submitted eight non-prioritized project requests for FY 2019-20 totaling \$9.1 million total funds, including \$9.0 million General Fund.
- House Bill 18-1421 (Procurement Process For Major IT Information Technology Projects), sponsored by the Joint Budget Committee, required several changes to improve the procurement process for information technology projects. The guiding principle for these changes was to help clarify roles in the procurement process between state agencies and OIT.

### RECOMMENDATION

House Bill 18-1421 indicates that the project plan for a major information technology project must include a planning and analysis function to be performed by OIT to ensure that a state agency's desired major information technology project solution is in accordance with the OIT's technology standards and to ensure that the scope and budget of the major information technology project are vetted by OIT. The Office indicates it does not have funding to hire personnel to fulfill these duties for all projects. Staff recommends that the Joint Budget Committee work with OIT to determine what level of additional resources are needed and what the options are for funding these resources.

## DISCUSSION

### *Background*

The Joint Budget Committee will be asked to consider capital construction information technology projects for funding during the figure setting process. Per H.B. 14-1395 (Information Technology Budget Requests), the Joint Technology Committee is tasked with producing written reports setting forth recommendations, prioritization, findings, and other comments with respect to each capital construction information technology project budget request. The reports must be submitted to the Joint Budget Committee by February 15<sup>th</sup> of each year. The Joint Budget Committee is required to consider the prioritized list of information technology budget requests made by the Joint Technology Committee, and, if the Joint Budget Committee alters the determinations of priority established by the Joint Technology Committee, the Joint Budget Committee is required to notify the Joint Technology Committee of the changes and allow for a joint meeting of the two committees to discuss the differences.

### *Legislative Changes to the IT Procurement Process for Projects*

House Bill 18-1421 (Procurement Process For Major IT Information Technology Projects), sponsored by the Joint Budget Committee, required several process changes to improve the procurement process for information technology projects. The guiding principle for these changes was to help clarify roles in the procurement process, whereby state agencies define their business needs, the “what,” and OIT defines the optimal solutions, the “how.” Specifically, the legislation required the executive branch to take the following actions.

- The bill requires the Department of Personnel’s State Controller to delegate to the Governor’s Office of Information Technology (OIT) the ability to authorize encumbrances of funds (e.g. sign contracts) for information technology projects. The legislation made this change to ensure that OIT, as the executive branch’s information technology expert, is the entity responsible for making the final determination on any contract related to information technology projects. In response, the State IT Model Contract was modified to indicate that “this Contract is not valid until signed and dated below by the Chief Information Officer or an authorized delegate.”
- The statutory provisions governing the project plan requirements for information technology projects<sup>12</sup> were amended to include a planning and analysis function performed by OIT. OIT’s expertise was not being leveraged in the idea generation and budgeting phases of projects to the degree needed to ensure that solutions desired are in accordance with OIT’s technology standards and are fully vetted for scope and budget. It was anticipated that this function would be funded as part of each major information technology project. OIT indicates that it reviews project architecture against state standards, however the Office states that it does not have funding to hire personnel to fulfill all of its new duties for all projects. The Joint Budget Committee may wish to determine what resources are needed for the Office to implement this provision of H.B. 18-1421.
- The bill required OIT to develop a standard for vendor selection for technology projects and that the standard include a process for resolving differences of opinion between OIT and agencies in vendor selections. This requirement was added because it was possible within the procurement process for vendors and solutions to be selected for projects that did not align with OIT’s

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<sup>12</sup> Section 24-37.5-105 (4)(c), C.R.S.

technology standards and were challenging to implement within proposed budgets. In response, a new policy for vendor selection went into effect on Friday November 30, 2018.

Note, H.B. 18-1421 also added a component to the independent evaluation of the state's information technology resources conducted by the Office of the State Auditor, as authorized and funded pursuant to H.B. 17-1361 (Evaluate State Information Technology Resources). This component is an evaluation of the procurement process associated with the Human Resource Information System (HRIS) project, now known as HRWorks. The goal of this additional audit is to conduct an objective autopsy of the HRWorks procurement to identify specific points in the process that contributed to challenges for the executive branch and the General Assembly in identifying and procuring optimal technology solutions and appropriating the needed funds to implement the technology solutions. It is envisioned that using the HRWorks project as a case study will benefit the executive branch and the General Assembly in identifying holistic changes that can be implemented to provide benefit to information technology procurements in the future. This report from the Office of the State Auditor will be available on or before June 30, 2019.

*Overview of FY 2019-20 Capital Construction Information Technology Project Requests*

The total FY 2019-20 appropriation request for capital construction information technology projects represents a total funds increase of 19.2 percent, including a General Fund increase of 43.4 percent, compared to the FY 2018-19 appropriation for capital construction information technology projects. The following table summarizes this comparison by dollar amount and percentage.

CAPITAL CONSTRUCTION INFORMATION TECHNOLOGY APPROPRIATIONS COMPARISON		
	TOTAL FUNDS	GENERAL FUND
<b>Executive Branch</b>		
FY 2018-19 Appropriation	\$30,904,586	\$15,206,760
FY 2019-20 Requested Appropriation	<u>\$27,741,695</u>	<u>\$12,848,308</u>
<b>\$ Difference</b>	<b>(\$3,162,891)</b>	<b>(\$2,358,452)</b>
<b>% Difference</b>	<b>(10.2%)</b>	<b>(15.5%)</b>
<b>Colorado Commission on Higher Education</b>		
FY 2018-19 Appropriation	\$0	\$0
FY 2019-20 Requested Appropriation	<u>\$9,101,814</u>	<u>\$8,959,030</u>
<b>\$ Difference</b>	<b>\$9,101,814</b>	<b>\$8,959,030</b>
<b>% Difference</b>	<b>n/a</b>	<b>n/a</b>
<b>Totals</b>		
FY 2018-19 Appropriation	<b>\$30,904,586</b>	<b>\$15,206,760</b>
FY 2019-20 Requested Appropriation	<b><u>\$36,843,509</u></b>	<b><u>\$21,807,338</u></b>
<b>\$ Difference</b>	<b>\$5,938,923</b>	<b>\$6,600,578</b>
<b>% Difference</b>	<b>19.2%</b>	<b>43.4%</b>

*FY 2019-20 Executive Branch Capital Construction Information Technology Requests*

The executive branch (not including the Colorado Commission on Higher Education) submitted a prioritized list of eight projects to the Joint Technology Committee and the Joint Budget Committee for funding for FY 2019-20. The following table summarizes the requests. Following the table, staff has included a brief write-up of each request, including a table of “Total Capital Construction Costs of the Project” to provide the Committee with the scope of the entire project for each request.

FY 2019-20 CAPITAL CONSTRUCTION INFORMATION TECHNOLOGY PROJECTS PRIORITIZED REQUEST LIST SUBMITTED BY THE OFFICE OF STATE PLANNING AND BUDGETING (OSPB)				
OSPB PRIORITY	REQUESTING AGENCY	PROJECT NAME	TOTAL FUNDS	GENERAL FUND
1	Department of Human Services	IT Systems Interoperability, Phase 5/5	\$2,320,949	\$2,320,949
2	Department of Human Services	Crisis System Data and Health IT Infrastructure	1,514,500	1,514,500
3	Governor's Office of Information Technology	Data Center, Phase 2/2	5,264,000	5,264,000
4	Office of the Lieutenant Governor	Colorado Health IT Roadmap Initiatives, Phase 2/3	11,508,333	1,150,833
5	Department of Labor and Employment	COSTIS / Division of Oil and Public Safety	2,785,277	0
6	Department of Public Safety	CCIB Community Corrections	2,205,000	2,205,000
7	Department of Personnel	CARS Replacement	1,625,610	0
8	History Colorado	E106 Project	\$518,026	\$393,026
<b>Total</b>			<b>\$27,741,695</b>	<b>\$12,848,308</b>

**IT SYSTEMS INTEROPERABILITY, PHASE 5/5 (DEPARTMENT OF HUMAN SERVICES):** The request includes \$2,320,949 General Fund for the final phase of a five phase project for the Department of Human Services to standardize all existing information technology systems the agency uses in an effort to allow the data contained in the systems to be made available without removing the data from the core systems. The solution is creating interfaces to access the data directly rather than exporting data from the core systems for import into other systems. The following table summarizes the total capital construction costs of the project. Note, this project uses the Enterprise Service Bus technology requested as a decision item by OIT (R6 Enterprise data integration services) and discussed in the summary of the FY 2019-20 request section of this document.

IT SYSTEMS INTEROPERABILITY, PHASE 5 OF 5 TOTAL CAPITAL CONSTRUCTION COSTS OF THE PROJECT		
FISCAL YEAR	TOTAL FUNDS	GENERAL FUND
FY 2015-16 Appropriation	\$12,815,940	\$1,281,594
FY 2016-17 Appropriation	9,288,520	928,852
FY 2017-18 Appropriation	10,611,880	1,061,188
FY 2018-19 Appropriation	500,000	50,000
FY 2019-20 Request	2,320,949	2,320,949
<b>Total</b>	<b>\$35,537,289</b>	<b>\$5,642,583</b>

**CRISIS SYSTEM DATA AND HEALTH IT INFRASTRUCTURE (DEPARTMENT OF HUMAN SERVICES):** The request includes a one-time capital construction appropriation of \$2,320,949 General Fund for the Department of Human Services to create a single crisis record system for the behavioral health hotline and service providers to standardize basic clinical documentation and coordinate responses between hotline callers and crisis interventions. Additionally, the project plan calls for developing a downloadable app for users to instant message hotline providers, to link users with resources and referral services, and to give providers tools to track patient engagement with community based services. The following table summarizes the total capital construction costs of the project.

CRISIS SYSTEM DATA AND HEALTH IT INFRASTRUCTURE TOTAL CAPITAL CONSTRUCTION COSTS OF THE PROJECT		
FISCAL YEAR	TOTAL FUNDS	GENERAL FUND
FY 2019-20 Request	\$2,320,949	\$2,320,949
<b>Total</b>	<b>\$2,320,949</b>	<b>\$2,320,949</b>

**DATA CENTER, PHASE 2/2 (GOVERNOR’S OFFICE OF INFORMATION TECHNOLOGY):** The request includes \$5,264,000 General Fund for the final phase of a two phase project for the Governor’s Office of Information Technology to repair the Lakewood Data Center. The following table summarizes the total capital construction costs of the project.

DATA CENTER, PHASE 2/2 TOTAL CAPITAL CONSTRUCTION COSTS OF THE PROJECT		
FISCAL YEAR	TOTAL FUNDS	GENERAL FUND
FY 2018-19 Appropriation	\$5,122,000	\$5,122,000
FY 2019-20 Request	5,264,000	5,264,000
<b>Total</b>	<b>\$10,386,000</b>	<b>\$10,386,000</b>

**COLORADO HEALTH IT ROADMAP INITIATIVES, PHASE 2/3 (OFFICE OF THE LIEUTENANT GOVERNOR):** The request includes \$11,508,333 total funds, including \$1,150,833 General Fund, for FY 2018-19 for the second phase of a three phase project for the Office of the Lieutenant Governor to implement initiatives of the Colorado Health IT Roadmap for a variety of purposes, including data quality improvement, reporting upgrades, integrating cost and quality data, and using information technology to benefit coordination of care. The following table summarizes the total capital construction costs of the project. Note, this project is linked to the operating budget decision item submitted by the Office of the Lieutenant Governor (R1 Colorado health IT roadmap operating) and discussed in the summary of the FY 2019-20 request section of this document.

COLORADO HEALTH IT ROADMAP INITIATIVES, PHASE 2/3 TOTAL CAPITAL CONSTRUCTION COSTS OF THE PROJECT		
FISCAL YEAR	TOTAL FUNDS	GENERAL FUND
FY 2018-19 Appropriation	\$6,605,000	\$1,875,500
FY 2019-20 Request	11,508,333	1,150,833
FY 2020-21 Estimate	4,450,000	445,000
<b>Total</b>	<b>\$22,563,333</b>	<b>\$3,471,333</b>

**COSTIS / DIVISION OF OIL AND PUBLIC SAFETY (DEPARTMENT OF LABOR AND EMPLOYMENT):** The request includes a one-time capital construction appropriation of \$2,785,277 cash funds from the Petroleum Storage Tank Fund and the Petroleum Cleanup and Redevelopment Fund for the Department of Labor and Employment to modernize the Colorado Storage Tank Information System (COSTIS). COSTIS is over 18 years old and is found to have a series of vulnerabilities stemming from system components that are no longer vendor supported. The following table summarizes the total capital construction costs of the project.

COSTIS / DIVISION OF OIL AND PUBLIC SAFETY TOTAL CAPITAL CONSTRUCTION COSTS OF THE PROJECT		
FISCAL YEAR	TOTAL FUNDS	GENERAL FUND
FY 2019-20 Request	\$2,785,277	\$0
<b>Total</b>	<b>\$2,785,277</b>	<b>\$0</b>

**CCIB COMMUNITY CORRECTIONS (DEPARTMENT OF PUBLIC SAFETY):** The request includes a one-time capital construction appropriation of \$2,205,000 General Fund for the Department of Public Safety to replace the Colorado Community Corrections Information and Billing System (CCIB). The technology CCIB is built on is outdated and cannot be effectively updated or patched. Additionally, the system is not cross-browser compatible. The following table summarizes the total capital construction costs of the project.

CCIB COMMUNITY CORRECTIONS TOTAL CAPITAL CONSTRUCTION COSTS OF THE PROJECT		
FISCAL YEAR	TOTAL FUNDS	GENERAL FUND
FY 2019-20 Request	\$2,205,000	\$2,205,000
<b>Total</b>	<b>\$2,205,000</b>	<b>\$2,205,000</b>

**CARS REPLACEMENT (DEPARTMENT OF PERSONNEL):** The request includes a one-time capital construction appropriation of \$1,625,610 cash funds from the Fleet Management Fund for the Department of Personnel to replace the Colorado Automotive Reporting System (CARS) with an off-the-shelf Fleet Information Management System (FIMS). CARS, which is used to track all state fleet vehicles through their life cycle from acquisition to disposal, is 21 years old and no longer supported by the Governor's Office of Information Technology. The following table summarizes the total capital construction costs of the project.

CARS REPLACEMENT TOTAL CAPITAL CONSTRUCTION COSTS OF THE PROJECT		
FISCAL YEAR	TOTAL FUNDS	GENERAL FUND
FY 2019-20 Request	\$1,625,610	\$0
<b>Total</b>	<b>\$1,625,610</b>	<b>\$0</b>

**E106 PROJECT (HISTORY COLORADO):** The request includes a one-time capital construction appropriation of \$518,026 total funds, including \$393,026 General Fund, for History Colorado to build a customized web application system to support the needs of Office of Archeology and Historic Preservation programs. Much of the business of the Office is conducted on paper creating information management challenges. The following table summarizes the total capital construction costs of the project.

E106 PROJECT TOTAL CAPITAL CONSTRUCTION COSTS OF THE PROJECT		
FISCAL YEAR	TOTAL FUNDS	GENERAL FUND
FY 2019-20 Request	\$518,026	\$393,026
<b>Total</b>	<b>\$518,026</b>	<b>\$393,026</b>

*FY 2019-20 Colorado Commission on Higher Education Capital Construction Information Technology Requests*

The Colorado Commission on Higher Education submitted a non-prioritized list of seven projects to the Joint Technology Committee and the Joint Budget Committee for funding for FY 2019-20. The following table summarizes the requests. Following the table, staff has included a brief write-up of each request, including a table of “Total Capital Construction Costs of the Project” to give the Committee the scope of the entire project for each request.

FY 2019-20 CAPITAL CONSTRUCTION INFORMATION TECHNOLOGY PROJECTS NON-PRIORITIZED REQUEST LIST SUBMITTED BY THE COLORADO COMMISSION ON HIGHER EDUCATION (CCHE)			
AGENCY	PROJECT	TOTAL FUNDS	GENERAL FUND
Community College of Aurora	Improving Student Access to Technology	\$527,845	\$475,061
Lamar Community College	Modernize Campus Technology	585,422	570,422
Otero Junior College	Computer Laboratory Library, and Emergency Notification Upgrades	550,000	475,000
Pikes Peak Community College	Campus Emergency Notification and Power	524,865	524,865
Trinidad State Junior College	Technology Infrastructure	636,846	636,846
Colorado State University System	Combined Campus Request	4,788,130	4,788,130
University of Northern Colorado	Next Generation Cyber Secure Network	1,488,706	1,488,706
<b>Total</b>		<b>\$9,101,814</b>	<b>\$8,959,030</b>

**IMPROVING STUDENT ACCESS TO TECHNOLOGY (COMMUNITY COLLEGE OF AURORA):** The request includes a one-time capital construction appropriation of \$527,845 total funds, including \$475,061 General Fund, for the Community College of Aurora to replace servers supporting computer labs and to upgrade the school’s wireless infrastructure. The following table summarizes the total capital construction costs of the project.

IMPROVING STUDENT ACCESS TO TECHNOLOGY TOTAL CAPITAL CONSTRUCTION COSTS OF THE PROJECT		
FISCAL YEAR	TOTAL FUNDS	GENERAL FUND
FY 2019-20 Request	\$527,845	\$475,061
<b>Total</b>	<b>\$527,845</b>	<b>\$475,061</b>

**MODERNIZE CAMPUS TECHNOLOGY (LAMAR COMMUNITY COLLEGE):** The request includes a one-time capital construction appropriation of \$585,422 total funds, including \$570,422 General Fund, for Lamar Community College to upgrade its instructional technology, office and classroom computer systems, servers, telephones, and digital signage. The following table summarizes the total capital construction costs of the project.

MODERNIZE CAMPUS TECHNOLOGY TOTAL CAPITAL CONSTRUCTION COSTS OF THE PROJECT		
FISCAL YEAR	TOTAL FUNDS	GENERAL FUND
FY 2019-20 Request	\$585,422	\$570,422
<b>Total</b>	<b>\$585,422</b>	<b>\$570,422</b>

**COMPUTER LABORATORY LIBRARY, AND EMERGENCY NOTIFICATION UPGRADES (OTERO JUNIOR COLLEGE):** The request includes \$550,000 total funds, including \$475,000 General Fund, for Otero Community College for phase one of a five phase project. For FY 2019-20, the College requests

funds to replace computers and monitors, laptops, and iPads, as well as to implement an audio emergency notification system. The following table summarizes the total capital construction costs of the project.

COMPUTER LABORATORY LIBRARY, AND EMERGENCY NOTIFICATION UPGRADES TOTAL CAPITAL CONSTRUCTION COSTS OF THE PROJECT		
FISCAL YEAR	TOTAL FUNDS	GENERAL FUND
FY 2019-20 Request	\$550,000	\$475,000
FY 2020-21 Estimate	600,000	520,000
FY 2021-22 Estimate	650,000	560,000
FY 2022-23 Estimate	700,000	600,000
FY 2023-24 Estimate	750,000	625,000
<b>Total</b>	<b>\$3,250,000</b>	<b>\$2,780,000</b>

**CAMPUS EMERGENCY NOTIFICATION AND POWER (PIKES PEAK COMMUNITY COLLEGE):** The request includes a one-time capital construction appropriation of \$524,865 General Fund for Pikes Peak Community College to install emergency audible and visual alert notification devices in hallways, indoor open spaces, and the outdoor areas near building entrances on its three campuses. Additionally, the College’s request includes funding to install power infrastructure to support the notification system. The following table summarizes the total capital construction costs of the project.

CAMPUS EMERGENCY NOTIFICATION AND POWER TOTAL CAPITAL CONSTRUCTION COSTS OF THE PROJECT		
FISCAL YEAR	TOTAL FUNDS	GENERAL FUND
FY 2019-20 Request	\$524,865	\$524,865
<b>Total</b>	<b>\$524,865</b>	<b>\$524,865</b>

**TECHNOLOGY INFRASTRUCTURE (TRINIDAD STATE JUNIOR COLLEGE):** The request includes a one-time capital construction appropriation of \$636,846 General Fund for Trinidad State Junior College to replace and upgrade its network infrastructure, including wireless network capabilities, disaster recovery systems, and video surveillance equipment. The following table summarizes the total capital construction costs of the project.

TECHNOLOGY INFRASTRUCTURE TOTAL CAPITAL CONSTRUCTION COSTS OF THE PROJECT		
FISCAL YEAR	TOTAL FUNDS	GENERAL FUND
FY 2019-20 Request	\$636,846	\$636,846
<b>Total</b>	<b>\$636,846</b>	<b>\$636,846</b>

**COMBINED CAMPUS REQUEST (COLORADO STATE UNIVERSITY SYSTEM):** The request includes \$4,788,130 General Fund for phase one of a five phase project at Colorado State University – Fort Collins and Colorado State University – Pueblo. For FY 2019-20, the schools request funds to upgrade network infrastructure and communications systems. The following table summarizes the total capital construction costs of the project.

COMBINED CAMPUS REQUEST TOTAL CAPITAL CONSTRUCTION COSTS OF THE PROJECT		
FISCAL YEAR	TOTAL FUNDS	GENERAL FUND
FY 2019-20 Request	\$4,788,130	\$4,788,130
FY 2020-21 Estimate	4,359,000	4,359,000
FY 2021-22 Estimate	3,813,000	3,813,000
FY 2022-23 Estimate	1,800,000	1,800,000
FY 2023-24 Estimate	1,700,000	1,700,000
<b>Total</b>	<b>\$16,460,130</b>	<b>\$16,460,130</b>

**NEXT GENERATION CYBER SECURE NETWORK (UNIVERSITY OF NORTHERN COLORADO):** The request includes a one-time capital construction appropriation of \$1,488,706 General Fund for the University of Northern Colorado to purchase new network and security infrastructure. The following table summarizes the total capital construction costs of the project.

NEXT GENERATION CYBER SECURE NETWORK TOTAL CAPITAL CONSTRUCTION COSTS OF THE PROJECT		
FISCAL YEAR	TOTAL FUNDS	GENERAL FUND
FY 2019-20 Request	\$1,488,706	\$1,488,706
<b>Total</b>	<b>\$1,488,706</b>	<b>\$1,488,706</b>

## Appendix A: Numbers Pages

	FY 2016-17 Actual	FY 2017-18 Actual	FY 2018-19 Appropriation	FY 2019-20 Request	Request vs. Appropriation
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### GOVERNOR - LIEUTENANT GOVERNOR - STATE PLANNING AND BUDGETING

John Hickenlooper, 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>2,370,231</u>	<u>2,458,512</u>	<u>3,568,478</u>	<u>3,686,986</u>	
FTE	32.4	32.4	32.4	32.4	
General Fund	2,370,231	2,361,136	3,024,625	3,139,070	
Cash Funds	0	97,376	102,849	106,912	
Reappropriated Funds	0	0	441,004	441,004	
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	
Mansion Activity Fund	<u>220,000</u>	<u>220,000</u>	<u>238,266</u>	<u>238,266</u>	
Cash Funds	220,000	220,000	238,266	238,266	

<b>SUBTOTAL - (A) Governor's Office</b>	2,609,731	2,698,012	3,826,244	3,944,752	3.1%
FTE	<u>32.4</u>	<u>32.4</u>	<u>32.4</u>	<u>32.4</u>	0.0%
General Fund	2,389,731	2,380,636	3,044,125	3,158,570	3.8%
Cash Funds	220,000	317,376	341,115	345,178	1.2%
Reappropriated Funds	0	0	441,004	441,004	0.0%

## Appendix A: Numbers Pages

	FY 2016-17 Actual	FY 2017-18 Actual	FY 2018-19 Appropriation	FY 2019-20 Request	Request vs. Appropriation
<b>(B) Special Purpose</b>					
Health, Life, and Dental	<u>928,817</u>	<u>911,036</u>	<u>1,441,286</u>	<u>1,528,689</u>	
General Fund	467,873	321,822	624,179	789,866	
Cash Funds	167,616	9,027	388,827	408,087	
Reappropriated Funds	165,400	425,572	214,043	134,297	
Federal Funds	127,928	154,615	214,237	196,439	
Short-term Disability	<u>24,539</u>	<u>15,757</u>	<u>23,787</u>	<u>24,160</u>	
General Fund	10,802	10,606	10,639	11,977	
Cash Funds	8,601	167	5,640	6,752	
Reappropriated Funds	2,923	3,304	4,689	2,673	
Federal Funds	2,213	1,680	2,819	2,758	
S.B. 04-257 Amortization Equalization Disbursement	<u>558,299</u>	<u>415,727</u>	<u>718,301</u>	<u>718,547</u>	
General Fund	284,432	287,400	321,282	356,127	
Cash Funds	138,629	4,403	170,310	200,895	
Reappropriated Funds	76,956	79,606	141,590	79,498	
Federal Funds	58,282	44,318	85,119	82,027	
S.B. 06-235 Supplemental Amortization Equalization Disbursement	<u>553,550</u>	<u>415,727</u>	<u>718,526</u>	<u>718,547</u>	
General Fund	281,469	287,400	321,282	356,127	
Cash Funds	138,252	4,403	170,535	200,895	
Reappropriated Funds	76,154	79,606	141,590	79,498	
Federal Funds	57,675	44,318	85,119	82,027	

## Appendix A: Numbers Pages

	FY 2016-17 Actual	FY 2017-18 Actual	FY 2018-19 Appropriation	FY 2019-20 Request	Request vs. Appropriation
PERA Direct Distribution	<u>0</u>	<u>0</u>	<u>0</u>	<u>395,560</u>	
General Fund	0	0	0	196,097	
Cash Funds	0	0	0	110,549	
Reappropriated Funds	0	0	0	43,761	
Federal Funds	0	0	0	45,153	
Salary Survey	<u>0</u>	<u>158,539</u>	<u>466,968</u>	<u>5,815</u>	
General Fund	0	109,501	208,880	3,489	
Cash Funds	0	1,823	110,736	2,326	
Reappropriated Funds	0	30,337	92,014	0	
Federal Funds	0	16,878	55,338	0	
Merit Pay	<u>0</u>	<u>69,367</u>	<u>0</u>	<u>462,097</u>	
General Fund	0	48,403	0	226,467	
Cash Funds	0	0	0	130,220	
Reappropriated Funds	0	13,470	0	51,880	
Federal Funds	0	7,494	0	53,530	
Workers' Compensation	<u>60,189</u>	<u>72,454</u>	<u>56,125</u>	<u>47,029</u>	
General Fund	49,826	59,061	39,647	33,222	
Reappropriated Funds	10,363	13,393	16,478	13,807	
Legal Services	<u>416,192</u>	<u>492,414</u>	<u>308,832</u>	<u>48,959</u>	
General Fund	356,244	356,244	171,647	24,480	
Reappropriated Funds	59,948	136,170	137,185	24,479	
Payment to Risk Management and Property Funds	<u>158,270</u>	<u>131,105</u>	<u>127,315</u>	<u>140,756</u>	
General Fund	150,537	123,038	116,287	70,378	
Reappropriated Funds	7,733	8,067	11,028	70,378	

## Appendix A: Numbers Pages

	FY 2016-17 Actual	FY 2017-18 Actual	FY 2018-19 Appropriation	FY 2019-20 Request	Request vs. Appropriation
Capitol Complex Leased Space	<u>328,535</u>	<u>395,375</u>	<u>363,953</u>	<u>318,699</u>	
General Fund	276,852	328,168	262,357	65,336	
Reappropriated Funds	51,683	67,207	101,596	253,363	
Payments to OIT	<u>4,930</u>	<u>274,446</u>	<u>62,586</u>	<u>27,035</u> *	
General Fund	4,930	270,969	62,586	27,035	
Reappropriated Funds	0	3,477	0	0	
CORE Operations	<u>370,445</u>	<u>96,744</u>	<u>93,891</u>	<u>86,855</u>	
General Fund	179,943	37,452	0	0	
Cash Funds	73,531	24,502	14,479	13,394	
Reappropriated Funds	42,842	10,159	64,857	59,997	
Federal Funds	74,129	24,631	14,555	13,464	
Indirect Cost Assessment	<u>0</u>	<u>0</u>	<u>7,978</u>	<u>7,978</u>	
Cash Funds	0	0	7,978	7,978	
Vehicle Lease Payments	<u>900</u>	<u>3,171</u>	<u>0</u>	<u>0</u>	
General Fund	900	3,171	0	0	
Reappropriated Funds	0	0	0	0	
<b>SUBTOTAL - (B) Special Purpose</b>	3,404,666	3,451,862	4,389,548	4,530,726	3.2%
<i>FTE</i>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	0.0%
General Fund	2,063,808	2,243,235	2,138,786	2,160,601	1.0%
Cash Funds	526,629	44,325	868,505	1,081,096	24.5%
Reappropriated Funds	494,002	870,368	925,070	813,631	(12.0%)
Federal Funds	320,227	293,934	457,187	475,398	4.0%

\*Line item includes a decision item.

## Appendix A: Numbers Pages

	FY 2016-17 Actual	FY 2017-18 Actual	FY 2018-19 Appropriation	FY 2019-20 Request	Request vs. Appropriation
<b>(C) Colorado Energy Office</b>					
Program Administration	<u>13,784,219</u>	<u>11,169,288</u>	<u>6,538,584</u>	<u>6,522,356</u>	
FTE	8.3	8.3	24.8	24.8	
General Fund	0	17,647	2,960,670	2,890,670	
Cash Funds	8,026,979	4,804,232	0	0	
Federal Funds	5,757,240	6,347,409	3,577,914	3,631,686	
Low-Income Energy Assistance	<u>693,374</u>	<u>1,236,538</u>	<u>6,500,000</u>	<u>6,559,980</u>	
FTE	0.0	0.0	0.0	0.0	
Cash Funds	693,374	1,236,538	6,500,000	6,559,980	
Electric Vehicle Charging Station Grants	<u>168,060</u>	<u>174,052</u>	<u>313,000</u>	<u>1,036,204</u>	*
Cash Funds	168,060	174,052	313,000	1,036,204	
Legal Services	<u>104,555</u>	<u>111,675</u>	<u>126,536</u>	<u>192,799</u>	
General Fund	0	77,299	92,160	140,421	
Cash Funds	70,179	0	0	0	
Federal Funds	34,376	34,376	34,376	52,378	
Vehicle Lease Payments	<u>0</u>	<u>0</u>	<u>3,212</u>	<u>3,036</u>	*
General Fund	0	0	3,212	3,036	
Leased Space	<u>0</u>	<u>0</u>	<u>209,330</u>	<u>229,801</u>	
General Fund	0	0	209,330	229,801	
Indirect Cost Assessment	<u>31,530</u>	<u>31,530</u>	<u>155,460</u>	<u>183,561</u>	
Cash Funds	31,530	0	0	0	
Federal Funds	0	31,530	155,460	183,561	

\*Line item includes a decision item.

## Appendix A: Numbers Pages

	FY 2016-17 Actual	FY 2017-18 Actual	FY 2018-19 Appropriation	FY 2019-20 Request	Request vs. Appropriation
School Energy Efficiency	<u>194,500</u>	<u>0</u>	<u>0</u>	<u>0</u>	
FTE	0.0	0.0	0.0	0.0	
Cash Funds	194,500	0	0	0	
<b>SUBTOTAL - (C) Colorado Energy Office</b>	14,976,238	12,723,083	13,846,122	14,727,737	6.4%
<i>FTE</i>	<u>8.3</u>	<u>8.3</u>	<u>24.8</u>	<u>24.8</u>	0.0%
General Fund	0	94,946	3,265,372	3,263,928	(0.0%)
Cash Funds	9,184,622	6,214,822	6,813,000	7,596,184	11.5%
Federal Funds	5,791,616	6,413,315	3,767,750	3,867,625	2.7%

### (D) Other Programs and Grants

Disabled Parking Education	<u>186,521</u>	<u>212,200</u>	<u>1,000</u>	<u>1,000</u>	
FTE	0.0	0.0	0.0	0.0	
General Fund	186,521	212,200	0	0	
Cash Funds	0	0	1,000	1,000	
Office of Marijuana Coordination	<u>216,944</u>	<u>0</u>	<u>0</u>	<u>0</u>	
FTE	0.0	0.0	0.0	0.0	
Cash Funds	216,944	0	0	0	
<b>SUBTOTAL - (D) Other Programs and Grants</b>	403,465	212,200	1,000	1,000	0.0%
<i>FTE</i>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	0.0%
General Fund	186,521	212,200	0	0	0.0%
Cash Funds	216,944	0	1,000	1,000	0.0%

## Appendix A: Numbers Pages

	FY 2016-17 Actual	FY 2017-18 Actual	FY 2018-19 Appropriation	FY 2019-20 Request	Request vs. Appropriation
<b>TOTAL - (1) Office of the Governor</b>	21,394,100	19,085,157	22,062,914	23,204,215	5.2%
<i>FTE</i>	<u>40.7</u>	<u>40.7</u>	<u>57.2</u>	<u>57.2</u>	<u>0.0%</u>
General Fund	4,640,060	4,931,017	8,448,283	8,583,099	1.6%
Cash Funds	10,148,195	6,576,523	8,023,620	9,023,458	12.5%
Reappropriated Funds	494,002	870,368	1,366,074	1,254,635	(8.2%)
Federal Funds	6,111,843	6,707,249	4,224,937	4,343,023	2.8%

## Appendix A: Numbers Pages

	FY 2016-17 Actual	FY 2017-18 Actual	FY 2018-19 Appropriation	FY 2019-20 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>350,135</u>	<u>348,605</u>	<u>371,443</u>	<u>469,921</u> *
FTE	2.7	2.7	2.7	4.0
General Fund	350,135	348,605	371,443	469,921
Discretionary Fund	<u>2,875</u>	<u>2,875</u>	<u>2,875</u>	<u>2,875</u>
General Fund	2,875	2,875	2,875	2,875
Commission of Indian Affairs	<u>86,017</u>	<u>96,048</u>	<u>244,291</u>	<u>244,291</u>
FTE	3.2	3.2	3.0	3.0
General Fund	86,017	96,048	243,107	243,107
Cash Funds	0	0	1,184	1,184
Commission on Community Service	<u>0</u>	<u>0</u>	<u>200,000</u>	<u>200,000</u>
General Fund	0	0	200,000	200,000
SIM Office Extension	<u>0</u>	<u>0</u>	<u>0</u>	<u>202,434</u> *
FTE	0.0	0.0	0.0	1.5
General Fund	0	0	0	202,434
Office of eHealth Innovation	<u>0</u>	<u>0</u>	<u>0</u>	<u>2,008,154</u> *
FTE	0.0	0.0	0.0	2.7
Reappropriated Funds	0	0	0	2,008,154

\*Line item includes a decision item.

## Appendix A: Numbers Pages

	FY 2016-17 Actual	FY 2017-18 Actual	FY 2018-19 Appropriation	FY 2019-20 Request	Request vs. Appropriation
Colorado Student Leaders Institute Pilot	<u>290,340</u>	<u>0</u>	<u>0</u>	<u>0</u>	
FTE	1.0	0.0	0.0	0.0	
Cash Funds	71,515	0	0	0	
Reappropriated Funds	218,825	0	0	0	
<b>TOTAL - (2) Office of the Lieutenant Governor</b>	729,367	447,528	818,609	3,127,675	282.1%
FTE	<u>6.9</u>	<u>5.9</u>	<u>5.7</u>	<u>11.2</u>	<u>96.5%</u>
General Fund	439,027	447,528	817,425	1,118,337	36.8%
Cash Funds	71,515	0	1,184	1,184	0.0%
Reappropriated Funds	218,825	0	0	2,008,154	0.0%

## Appendix A: Numbers Pages

	FY 2016-17 Actual	FY 2017-18 Actual	FY 2018-19 Appropriation	FY 2019-20 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>2,138,056</u>	<u>2,513,790</u>	<u>2,671,306</u>	<u>2,845,409</u>	
FTE	20.5	20.5	20.5	21.4	
General Fund	627,274	1,055,000	1,127,274	1,205,236	
Cash Funds	0	0	0	0	
Reappropriated Funds	1,510,782	1,458,790	1,544,032	1,640,173	
Operating Expenses	<u>61,844</u>	<u>61,807</u>	<u>61,844</u>	<u>61,844</u>	
General Fund	10,900	10,900	10,900	10,900	
Reappropriated Funds	50,944	50,907	50,944	50,944	
Economic Forecasting Subscriptions	<u>16,362</u>	<u>6,804</u>	<u>16,362</u>	<u>16,362</u>	
Reappropriated Funds	16,362	6,804	16,362	16,362	
Evidence-based Policymaking Evaluation and Support	<u>0</u>	<u>323,579</u>	<u>1,154,087</u>	<u>2,254,592</u>	
Cash Funds	0	323,579	1,154,087	2,254,592	
<b>TOTAL - (3) Office of State Planning and Budgeting</b>	<b>2,216,262</b>	<b>2,905,980</b>	<b>3,903,599</b>	<b>5,178,207</b>	<b>32.7%</b>
FTE	<u>20.5</u>	<u>20.5</u>	<u>20.5</u>	<u>21.4</u>	<b>4.4%</b>
General Fund	638,174	1,065,900	1,138,174	1,216,136	<b>6.8%</b>
Cash Funds	0	323,579	1,154,087	2,254,592	<b>95.4%</b>
Reappropriated Funds	1,578,088	1,516,501	1,611,338	1,707,479	<b>6.0%</b>

## Appendix A: Numbers Pages

	FY 2016-17 Actual	FY 2017-18 Actual	FY 2018-19 Appropriation	FY 2019-20 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>649,848</u>	<u>645,555</u>	<u>694,582</u>	<u>783,999</u>	
FTE	6.0	6.0	6.0	6.0	
General Fund	645,263	645,555	689,997	779,414	
Cash Funds	2,435	0	2,435	2,435	
Federal Funds	2,150	0	2,150	2,150	
Vehicle Lease Payments	<u>12,150</u>	<u>11,256</u>	<u>13,224</u>	<u>13,534</u>	*
General Fund	12,150	11,256	13,224	13,534	
Leased Space	<u>325,206</u>	<u>346,525</u>	<u>346,525</u>	<u>346,525</u>	
General Fund	325,206	346,525	346,525	346,525	
Global Business Development	<u>4,306,905</u>	<u>4,258,604</u>	<u>5,315,052</u>	<u>5,340,052</u>	*
FTE	24.4	24.4	24.4	24.4	
General Fund	3,967,537	4,031,948	4,216,948	4,216,948	
Cash Funds	6,598	29,412	548,626	573,626	
Reappropriated Funds	0	0	175,000	175,000	
Federal Funds	332,770	197,244	374,478	374,478	
Leading Edge Program Grants	<u>75,976</u>	<u>94,316</u>	<u>151,407</u>	<u>151,407</u>	
General Fund	75,976	75,976	75,976	75,976	
Cash Funds	0	18,340	75,431	75,431	

\*Line item includes a decision item.

## Appendix A: Numbers Pages

	FY 2016-17 Actual	FY 2017-18 Actual	FY 2018-19 Appropriation	FY 2019-20 Request	Request vs. Appropriation
Small Business Development Centers	<u>1,978,705</u>	<u>2,150,855</u>	<u>1,373,120</u>	<u>1,378,946</u>	
FTE	4.0	4.0	4.0	4.0	
General Fund	94,144	94,144	94,144	94,144	
Cash Funds	0	0	0	0	
Federal Funds	1,884,561	2,056,711	1,278,976	1,284,802	
Colorado Office of Film, Television, and Media	<u>2,399,029</u>	<u>266,247</u>	<u>1,269,525</u>	<u>2,519,525</u>	*
FTE	4.5	4.5	4.5	4.5	
General Fund	1,212,360	0	750,000	2,000,000	
Cash Funds	1,186,669	266,247	519,525	519,525	
Colorado Promotion - Colorado Welcome Centers	<u>500,000</u>	<u>499,779</u>	<u>516,000</u>	<u>516,000</u>	
FTE	3.3	3.3	3.3	3.3	
Cash Funds	500,000	499,779	516,000	516,000	
Colorado Promotion - Other Program Costs	<u>18,536,333</u>	<u>18,077,068</u>	<u>18,522,500</u>	<u>18,579,623</u>	
FTE	4.0	4.0	4.0	4.0	
General Fund	4,000,000	4,000,000	4,000,000	4,000,000	
Cash Funds	14,536,333	14,077,068	14,522,500	14,579,623	
Destination Development Program	<u>476,171</u>	<u>449,606</u>	<u>1,100,000</u>	<u>1,100,000</u>	
General Fund	0	0	500,000	500,000	
Cash Funds	476,171	449,606	600,000	600,000	
Economic Development Commission - General Economic Incentives and Marketing	<u>5,662,873</u>	<u>5,745,715</u>	<u>6,119,456</u>	<u>6,119,456</u>	
FTE	5.8	5.8	5.8	5.8	
General Fund	5,442,602	5,465,664	5,685,664	5,685,664	
Cash Funds	220,271	280,051	433,792	433,792	

\*Line item includes a decision item.

## Appendix A: Numbers Pages

	FY 2016-17 Actual	FY 2017-18 Actual	FY 2018-19 Appropriation	FY 2019-20 Request	Request vs. Appropriation
Colorado First Customized Job Training	<u>4,572,280</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	72,280	0	0	0	
CAPCO Administration	<u>85,291</u>	<u>85,291</u>	<u>85,291</u>	<u>85,291</u>	
FTE	2.0	2.0	2.0	2.0	
Reappropriated Funds	85,291	85,291	85,291	85,291	
Council on Creative Industries	<u>2,739,600</u>	<u>3,222,958</u>	<u>2,788,734</u>	<u>2,788,734</u>	
FTE	3.0	3.0	3.0	3.0	
Cash Funds	2,000,000	2,504,958	2,023,000	2,023,000	
Federal Funds	739,600	718,000	765,734	765,734	
Advanced Industries	<u>15,861,254</u>	<u>10,356,375</u>	<u>14,040,766</u>	<u>14,040,766</u>	
FTE	2.6	2.6	2.6	2.6	
General Fund	3,073,630	0	0	0	
Cash Funds	12,787,624	10,356,375	14,040,766	14,040,766	
Rural Jump Start	<u>80,983</u>	<u>80,922</u>	<u>80,983</u>	<u>80,983</u>	
FTE	1.0	1.0	1.0	1.0	
General Fund	80,983	80,922	80,983	80,983	
Indirect Cost Assessment	<u>61,384</u>	<u>61,384</u>	<u>339,199</u>	<u>362,993</u>	
Cash Funds	0	61,384	339,199	362,993	
Federal Funds	61,384	0	0	0	

## Appendix A: Numbers Pages

	FY 2016-17 Actual	FY 2017-18 Actual	FY 2018-19 Appropriation	FY 2019-20 Request	Request vs. Appropriation
<b>TOTAL - (4) Economic Development Programs</b>	58,323,988	50,852,456	57,256,364	58,707,834	2.5%
<i>FTE</i>	<u>60.6</u>	<u>60.6</u>	<u>60.6</u>	<u>60.6</u>	<u>0.0%</u>
General Fund	23,429,851	19,251,990	20,953,461	22,293,188	6.4%
Cash Funds	31,788,381	28,543,220	33,621,274	33,727,191	0.3%
Reappropriated Funds	85,291	85,291	260,291	260,291	0.0%
Federal Funds	3,020,465	2,971,955	2,421,338	2,427,164	0.2%

## Appendix A: Numbers Pages

	FY 2016-17 Actual	FY 2017-18 Actual	FY 2018-19 Appropriation	FY 2019-20 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>9,470,872</u>	<u>10,822,975</u>	<u>13,359,253</u>	<u>19,239,819</u>	*
FTE	81.7	83.1	97.0	97.5	
General Fund	0	0	256,188	5,841,654	
Cash Funds	0	1,531,439	3,200,000	3,200,000	
Reappropriated Funds	9,470,872	9,291,536	9,903,065	10,198,165	
Project Management	<u>5,097,858</u>	<u>5,611,907</u>	<u>5,790,815</u>	<u>8,179,401</u>	*
FTE	47.7	47.7	52.0	53.9	
Reappropriated Funds	5,097,858	5,611,907	5,790,815	8,179,401	
Health, Life, and Dental	<u>8,033,244</u>	<u>8,345,064</u>	<u>8,969,578</u>	<u>9,282,160</u>	*
General Fund	49,241	67,238	101,562	88,386	
Reappropriated Funds	7,984,003	8,277,826	8,868,016	9,193,774	
Short-term Disability	<u>133,817</u>	<u>137,996</u>	<u>127,363</u>	<u>131,739</u>	*
General Fund	602	1,166	1,414	1,273	
Reappropriated Funds	133,215	136,830	125,949	130,466	
S.B. 04-257 Amortization Equalization Disbursement	<u>3,387,612</u>	<u>3,636,575</u>	<u>3,753,986</u>	<u>3,878,515</u>	*
General Fund	15,221	30,709	41,620	37,714	
Reappropriated Funds	3,372,391	3,605,866	3,712,366	3,840,801	

\*Line item includes a decision item.

## Appendix A: Numbers Pages

	FY 2016-17 Actual	FY 2017-18 Actual	FY 2018-19 Appropriation	FY 2019-20 Request	Request vs. Appropriation
S.B. 06-235 Supplemental Amortization Equalization					
Disbursement	<u>3,352,325</u>	<u>3,636,575</u>	<u>3,753,986</u>	<u>3,878,515</u> *	
General Fund	15,063	30,709	41,620	37,714	
Reappropriated Funds	<u>3,337,262</u>	<u>3,605,866</u>	<u>3,712,366</u>	<u>3,840,801</u>	
PERA Direct Distribution	<u>0</u>	<u>0</u>	<u>0</u>	<u>2,144,838</u>	
General Fund	0	0	0	22,113	
Reappropriated Funds	<u>0</u>	<u>0</u>	<u>0</u>	<u>2,122,725</u>	
Salary Survey	<u>24,320</u>	<u>1,384,517</u>	<u>2,437,565</u>	<u>15,586</u>	
General Fund	0	11,701	27,051	0	
Reappropriated Funds	<u>24,320</u>	<u>1,372,816</u>	<u>2,410,514</u>	<u>15,586</u>	
Merit Pay	<u>0</u>	<u>576,190</u>	<u>0</u>	<u>2,366,259</u>	
General Fund	0	5,205	0	24,480	
Reappropriated Funds	<u>0</u>	<u>570,985</u>	<u>0</u>	<u>2,341,779</u>	
Shift Differential	<u>94,672</u>	<u>92,356</u>	<u>99,153</u>	<u>44,005</u>	
Reappropriated Funds	<u>94,672</u>	<u>92,356</u>	<u>99,153</u>	<u>44,005</u>	
Workers' Compensation	<u>421,427</u>	<u>507,408</u>	<u>393,061</u>	<u>329,357</u>	
Reappropriated Funds	<u>421,427</u>	<u>507,408</u>	<u>393,061</u>	<u>329,357</u>	
Legal Services	<u>46,479</u>	<u>33,247</u>	<u>53,796</u>	<u>185,511</u>	
Reappropriated Funds	<u>46,479</u>	<u>33,247</u>	<u>53,796</u>	<u>185,511</u>	
Payment to Risk Management and Property Funds	<u>314,504</u>	<u>260,522</u>	<u>277,119</u>	<u>306,377</u>	
Reappropriated Funds	<u>314,504</u>	<u>260,522</u>	<u>277,119</u>	<u>306,377</u>	

\*Line item includes a decision item.

## Appendix A: Numbers Pages

	FY 2016-17 Actual	FY 2017-18 Actual	FY 2018-19 Appropriation	FY 2019-20 Request	Request vs. Appropriation
Vehicle Lease Payments	<u>82,607</u>	<u>85,260</u>	<u>89,986</u>	<u>93,775</u>	*
Reappropriated Funds	82,607	85,260	89,986	93,775	
Leased Space	<u>3,163,739</u>	<u>3,130,543</u>	<u>3,206,767</u>	<u>3,206,767</u>	*
Reappropriated Funds	3,163,739	3,130,543	3,206,767	3,206,767	
Capitol Complex Leased Space	<u>248,984</u>	<u>287,859</u>	<u>264,631</u>	<u>232,898</u>	
Reappropriated Funds	248,984	287,859	264,631	232,898	
Payments to OIT	<u>0</u>	<u>0</u>	<u>9,251,682</u>	<u>14,605,333</u>	
Reappropriated Funds	0	0	9,251,682	14,605,333	
CORE Operations	<u>0</u>	<u>237,501</u>	<u>243,714</u>	<u>225,892</u>	
FTE	0.0	0.0	0.0	0.0	
Reappropriated Funds	0	237,501	243,714	225,892	
Indirect Cost Assessment	<u>387,833</u>	<u>670,859</u>	<u>653,337</u>	<u>663,841</u>	
Reappropriated Funds	387,833	670,859	653,337	663,841	
<b>SUBTOTAL - (A) OIT Central Administration</b>	<b>34,260,293</b>	<b>39,457,354</b>	<b>52,725,792</b>	<b>69,010,588</b>	<b>30.9%</b>
FTE	<u>129.4</u>	<u>130.8</u>	<u>149.0</u>	<u>151.4</u>	<b>1.6%</b>
General Fund	80,127	146,728	469,455	6,053,334	1189.4%
Cash Funds	0	1,531,439	3,200,000	3,200,000	0.0%
Reappropriated Funds	34,180,166	37,779,187	49,056,337	59,757,254	21.8%
<b>(B) IT Infrastructure</b>					
Infrastructure Administration	<u>5,449,926</u>	<u>5,540,669</u>	<u>5,908,131</u>	<u>6,822,742</u>	*
FTE	17.4	20.5	23.0	31.5	
Reappropriated Funds	5,449,926	5,540,669	5,908,131	6,822,742	

\*Line item includes a decision item.

## Appendix A: Numbers Pages

	FY 2016-17 Actual	FY 2017-18 Actual	FY 2018-19 Appropriation	FY 2019-20 Request	Request vs. Appropriation
Data Center Services	<u>779,238</u>	<u>760,030</u>	<u>804,009</u>	<u>822,021</u>	
FTE	9.0	8.0	8.0	8.0	
Reappropriated Funds	779,238	760,030	804,009	822,021	
Mainframe Services	<u>4,178,935</u>	<u>4,290,667</u>	<u>4,399,271</u>	<u>4,454,265</u>	
FTE	29.7	29.0	31.0	31.0	
Cash Funds	0	0	2,328	2,328	
Reappropriated Funds	4,178,935	4,290,667	4,396,943	4,451,937	
Server Management	<u>11,352,390</u>	<u>13,838,233</u>	<u>18,772,760</u>	<u>23,858,358</u> *	
FTE	62.0	61.5	72.0	85.5	
Reappropriated Funds	11,352,390	13,838,233	18,772,760	23,858,358	
<b>SUBTOTAL - (B) IT Infrastructure</b>	21,760,489	24,429,599	29,884,171	35,957,386	20.3%
FTE	<u>118.1</u>	<u>119.0</u>	<u>134.0</u>	<u>156.0</u>	<u>16.4%</u>
Cash Funds	0	0	2,328	2,328	0.0%
Reappropriated Funds	21,760,489	24,429,599	29,881,843	35,955,058	20.3%

### (C) Network Services

Network Administration	<u>3,576,778</u>	<u>3,250,913</u>	<u>3,943,800</u>	<u>4,043,588</u> *	
FTE	3.0	3.3	4.0	5.0	
Reappropriated Funds	3,576,778	3,250,913	3,943,800	4,043,588	
Colorado State Network Core	<u>5,130,587</u>	<u>5,626,765</u>	<u>5,801,371</u>	<u>7,538,977</u> *	
FTE	34.9	35.1	36.0	37.0	
Reappropriated Funds	5,130,587	5,626,765	5,801,371	7,538,977	

\*Line item includes a decision item.

## Appendix A: Numbers Pages

	FY 2016-17 Actual	FY 2017-18 Actual	FY 2018-19 Appropriation	FY 2019-20 Request	Request vs. Appropriation
Colorado State Network Circuits	<u>6,886,813</u>	<u>6,127,209</u>	<u>7,047,825</u>	<u>7,080,410</u>	
Reappropriated Funds	6,886,813	6,127,209	7,047,825	7,080,410	
Voice and Data Services	<u>5,836,117</u>	<u>5,495,825</u>	<u>12,875,284</u>	<u>13,699,921</u> *	
FTE	10.5	8.5	12.0	12.0	
Cash Funds	0	0	1,200,000	1,200,000	
Reappropriated Funds	5,836,117	5,495,825	11,675,284	12,499,921	
Public Safety Network	<u>12,213,595</u>	<u>16,707,607</u>	<u>24,742,131</u>	<u>24,844,185</u>	
FTE	44.7	39.4	54.0	54.0	
General Fund	3,500,000	7,200,000	9,200,000	9,200,000	
Cash Funds	59	0	48,600	48,600	
Reappropriated Funds	8,592,536	9,386,607	15,372,531	15,474,585	
Federal Funds	121,000	121,000	121,000	121,000	
<b>SUBTOTAL - (C) Network Services</b>	<b>33,643,890</b>	<b>37,208,319</b>	<b>54,410,411</b>	<b>57,207,081</b>	<b>5.1%</b>
<i>FTE</i>	<u>93.1</u>	<u>86.3</u>	<u>106.0</u>	<u>108.0</u>	<u>1.9%</u>
General Fund	3,500,000	7,200,000	9,200,000	9,200,000	0.0%
Cash Funds	59	0	1,248,600	1,248,600	0.0%
Reappropriated Funds	30,022,831	29,887,319	43,840,811	46,637,481	6.4%
Federal Funds	121,000	121,000	121,000	121,000	0.0%

### (D) Information Security

Security Administration	<u>380,418</u>	<u>387,875</u>	<u>401,813</u>	<u>412,886</u>	
FTE	2.5	2.9	3.0	3.0	
Reappropriated Funds	380,418	387,875	401,813	412,886	

\*Line item includes a decision item.

## Appendix A: Numbers Pages

	FY 2016-17 Actual	FY 2017-18 Actual	FY 2018-19 Appropriation	FY 2019-20 Request	Request vs. Appropriation
Security Governance	<u>5,976,945</u>	<u>6,748,213</u>	<u>7,125,247</u>	<u>7,151,449</u>	
FTE	8.3	8.4	6.0	6.0	
Reappropriated Funds	5,976,945	6,748,213	7,125,247	7,151,449	
Security Operations	<u>2,312,655</u>	<u>4,429,109</u>	<u>5,721,594</u>	<u>12,559,887</u>	*
FTE	24.6	30.9	38.0	44.9	
Reappropriated Funds	2,312,655	4,429,109	5,721,594	12,559,887	
<b>SUBTOTAL - (D) Information Security</b>	8,670,018	11,565,197	13,248,654	20,124,222	51.9%
FTE	<u>35.4</u>	<u>42.2</u>	<u>47.0</u>	<u>53.9</u>	<u>14.7%</u>
Reappropriated Funds	8,670,018	11,565,197	13,248,654	20,124,222	51.9%

### (E) Applications

Applications Administration	<u>1,114,810</u>	<u>1,893,905</u>	<u>3,356,362</u>	<u>5,908,993</u>	*
FTE	12.7	14.5	15.0	17.0	
General Fund	1,071,330	1,054,600	1,313,202	1,341,955	
Cash Funds	0	578,892	638,750	638,750	
Reappropriated Funds	43,480	260,413	1,404,410	3,928,288	
Shared Services	<u>0</u>	<u>12,794,192</u>	<u>15,892,845</u>	<u>16,718,087</u>	*
FTE	0.0	94.8	112.0	112.0	
Reappropriated Funds	0	12,794,192	15,892,845	16,718,087	
Agency Services	<u>0</u>	<u>20,042,146</u>	<u>21,567,420</u>	<u>27,634,248</u>	*
FTE	0.0	177.6	177.0	189.9	
Reappropriated Funds	0	20,042,146	21,567,420	27,634,248	

\*Line item includes a decision item.

## Appendix A: Numbers Pages

	FY 2016-17 Actual	FY 2017-18 Actual	FY 2018-19 Appropriation	FY 2019-20 Request	Request vs. Appropriation
Colorado Benefits Management System	<u>46,447,805</u>	<u>71,959,928</u>	<u>61,868,613</u>	<u>67,406,882</u> *	
FTE	44.3	41.6	49.5	49.5	
Reappropriated Funds	46,447,805	71,959,928	61,868,613	67,406,882	
Enterprise Services	<u>2,725,684</u>	<u>0</u>	<u>0</u>	<u>0</u>	
FTE	26.5	0.0	0.0	0.0	
Reappropriated Funds	2,725,684	0	0	0	
Health Services	<u>12,503,503</u>	<u>0</u>	<u>0</u>	<u>0</u>	
FTE	91.9	0.0	0.0	0.0	
Reappropriated Funds	12,503,503	0	0	0	
Revenue and Regulatory Services	<u>6,690,827</u>	<u>0</u>	<u>0</u>	<u>0</u>	
FTE	71.5	0.0	0.0	0.0	
Reappropriated Funds	6,690,827	0	0	0	
Financial Management Services	<u>931,741</u>	<u>0</u>	<u>0</u>	<u>0</u>	
FTE	7.4	0.0	0.0	0.0	
Reappropriated Funds	931,741	0	0	0	
Personnel Management Services	<u>1,620,078</u>	<u>0</u>	<u>0</u>	<u>0</u>	
FTE	11.7	0.0	0.0	0.0	
Reappropriated Funds	1,620,078	0	0	0	
Safety and Transportation Services	<u>4,461,761</u>	<u>0</u>	<u>0</u>	<u>0</u>	
FTE	45.7	0.0	0.0	0.0	
Reappropriated Funds	4,461,761	0	0	0	

\*Line item includes a decision item.

## Appendix A: Numbers Pages

	FY 2016-17 Actual	FY 2017-18 Actual	FY 2018-19 Appropriation	FY 2019-20 Request	Request vs. Appropriation
Labor and Employment Services	<u>2,429,997</u>	<u>0</u>	<u>0</u>	<u>0</u>	
FTE	23.3	0.0	0.0	0.0	
Reappropriated Funds	2,429,997	0	0	0	
<b>SUBTOTAL - (E) Applications</b>	78,926,206	106,690,171	102,685,240	117,668,210	14.6%
FTE	<u>335.0</u>	<u>328.5</u>	<u>353.5</u>	<u>368.4</u>	4.2%
General Fund	1,071,330	1,054,600	1,313,202	1,341,955	2.2%
Cash Funds	0	578,892	638,750	638,750	0.0%
Reappropriated Funds	77,854,876	105,056,679	100,733,288	115,687,505	14.8%

### (F) End User Services

End User Administration	<u>207,779</u>	<u>206,187</u>	<u>214,586</u>	<u>333,509</u>	
FTE	2.0	1.9	2.0	2.0	
Reappropriated Funds	207,779	206,187	214,586	333,509	
Service Desk Services	<u>2,964,344</u>	<u>3,010,703</u>	<u>3,234,440</u>	<u>4,090,379</u>	*
FTE	39.3	37.3	48.0	48.0	
Reappropriated Funds	2,964,344	3,010,703	3,234,440	4,090,379	
Deskside Support Services	<u>8,793,690</u>	<u>9,568,469</u>	<u>9,626,289</u>	<u>9,949,347</u>	*
FTE	111.6	115.2	115.0	116.0	
Reappropriated Funds	8,793,690	9,568,469	9,626,289	9,949,347	
Email Services	<u>1,941,134</u>	<u>1,940,802</u>	<u>1,948,228</u>	<u>1,954,680</u>	
FTE	2.4	2.3	3.0	3.0	
Reappropriated Funds	1,941,134	1,940,802	1,948,228	1,954,680	

\*Line item includes a decision item.

## Appendix A: Numbers Pages

	FY 2016-17 Actual	FY 2017-18 Actual	FY 2018-19 Appropriation	FY 2019-20 Request	Request vs. Appropriation
<b>SUBTOTAL - (F) End User Services</b>	13,906,947	14,726,161	15,023,543	16,327,915	8.7%
<i>FTE</i>	<u>155.3</u>	<u>156.7</u>	<u>168.0</u>	<u>169.0</u>	<u>0.6%</u>
Reappropriated Funds	13,906,947	14,726,161	15,023,543	16,327,915	8.7%
<b>TOTAL - (5) Office of Information Technology</b>	191,167,843	234,076,801	267,977,811	316,295,402	18.0%
<i>FTE</i>	<u>866.3</u>	<u>863.5</u>	<u>957.5</u>	<u>1,006.7</u>	<u>5.1%</u>
General Fund	4,651,457	8,401,328	10,982,657	16,595,289	51.1%
Cash Funds	59	2,110,331	5,089,678	5,089,678	0.0%
Reappropriated Funds	186,395,327	223,444,142	251,784,476	294,489,435	17.0%
Federal Funds	121,000	121,000	121,000	121,000	0.0%
<b>TOTAL - Governor - Lieutenant Governor - State Planning and Budgeting</b>	273,831,560	307,367,922	352,019,297	406,513,333	15.5%
<i>FTE</i>	<u>995.0</u>	<u>991.2</u>	<u>1,101.5</u>	<u>1,157.1</u>	<u>5.0%</u>
General Fund	33,798,569	34,097,763	42,340,000	49,806,049	17.6%
Cash Funds	42,008,150	37,553,653	47,889,843	50,096,103	4.6%
Reappropriated Funds	188,771,533	225,916,302	255,022,179	299,719,994	17.5%
Federal Funds	9,253,308	9,800,204	6,767,275	6,891,187	1.8%

## APPENDIX B

### RECENT LEGISLATION AFFECTING DEPARTMENT BUDGET

#### 2017 SESSION BILLS

**S.B. 17-028 (HEALTHY FAMILIES AND MILITARY PREPAREDNESS ACT):** Requires the Department of Human Services and county departments of human or social services to provide notice and to collect and share information with the command authority of national military installations regarding any report received of known or suspected instances of child abuse or neglect in which the person having custody or control of the child is a member of the armed forces, or a spouse, or a significant other or family member residing in the home of the member of the armed forces assigned to that military installation. Appropriates \$12,960 reappropriated funds to the Governor's Office of Information Technology transferred from the Department of Human Services for FY 2017-18 for computer programming services.

**S.B. 17-060 (CO STUDENT LEADERS INSTITUTE RELOCATION TO CDHE):** Relocates the Colorado Student Leaders Institute from the Office of the Lieutenant Governor to the Department of Higher Education. Transfers an appropriation of \$218,825 General Fund and 1.0 FTE from the Office of the Lieutenant Governor to the Department of Higher Education for FY 2017-18.

**S.B. 17-161 (SUPPLEMENTAL BILL):** Modifies FY 2016-17 appropriations to the Department.

**S.B. 17-254 (LONG BILL):** General appropriations act for FY 2017-18.

**S.B. 17-255 (TECHNOLOGY ADVANCEMENT AND EMERGENCY FUND):** Creates the Technology Advancement and Emergency Fund in the Governor's Office of Information Technology (OIT) to be used for one-time costs associated with emergency information technology expenditures, addressing deferred maintenance of state agency information technology assets, and providing additional services to address unforeseen information technology service demands. Transfers \$2.0 million from the General Fund to the Technology Advancement and Emergency Fund for FY 2017-18 and FY 2018-19. Appropriates \$3.2 million cash funds from the Technology Advancement and Emergency Fund to OIT for FY 2017-18.

**S.B. 17-280 (EXTENDING THE ECONOMIC DEVELOPMENT COMMISSION):** Extends the Economic Development Commission until July 1, 2025. Appropriates \$5,000,000 General Fund to the Office of Economic Development and International Trade for Commission administration, general economic incentives, and marketing. Specifies that the Commission may transfer any General Fund money appropriated to it into the Colorado Economic Development Fund and may spend that money without further appropriation.

**H.B. 17-1090 (ADVANCED INDUSTRY INVESTMENT TAX CREDIT EXTENSION):** Extends the Advanced Industry Investment Income Tax Credit Program through tax years 2018 to 2022. Authorizes the Office of Economic Development and International Trade (OEDIT) to issue \$750,000 worth of state income tax credits each year from 2018 to 2022 to qualified investors. Appropriates

\$23,062 General Fund and 0.3 FTE to OEDIT for FY 2017-18 to administer the program. Reduces General Fund revenue by \$262,500 in FY 2017-18.

**H.B. 17-1165 (DORA BOARDS DISCIPLINARY ACTION RESOLUTION PROCESS):** Modifies the disciplinary procedures for six health care boards for health care professionals with prescriptive authority (Colorado Podiatry Board, Colorado Dental Board, Colorado Medical Board, State Board of Nursing, State Board of Optometry, and State Board of Veterinary Medicine) within the Department of Regulatory Agencies. Appropriates \$20,000 reappropriated funds to the Governor's Office of Information Technology transferred from the Department of Regulatory Agencies for FY 2017-18 for computer programming services.

**H.B. 17-1204 (JUVENILE DELINQUENCY RECORD EXPUNGEMENT):** Makes a number of changes relating to access to juvenile delinquency records and the eligibility and process for expunging these records. Appropriates \$108,710 reappropriated funds to the Governor's Office of Information Technology transferred from the Department of Human Services for FY 2017-18 for computer programming services.

**H.B. 17-1221 (GREY AND BLACK MARKET MJ ENFORCEMENT EFFORTS):** Creates the Gray and Black Market Marijuana Enforcement Grant Program in the Department of Local Affairs. Creates an offense for a person who is not a primary caregiver for possessing a marijuana plant that the person is growing on behalf of another person. Appropriates \$21,603 reappropriated funds to the Governor's Office of Information Technology transferred from the Department of Local Affairs for FY 2017-18 for computer programming services.

**H.B. 17-1313 (CIVIL FORFEITURE REFORM):** Prohibits law enforcement agencies, prosecutors, and multijurisdictional task forces (seizing agencies) from receiving forfeiture proceeds from the federal government unless the aggregate net equity value of the property and currency seized in the case is in excess of \$50,000 and the federal government commences a forfeiture proceeding that relates to a filed criminal case. Requires the Department of Local Affairs to establish a form for seizing agencies to use in submitting to the Department biannual reports containing specified information on seizures through which the seizing agencies received proceeds from a forfeiture and the use of the proceeds. Appropriates \$44,486 reappropriated funds to the Governor's Office of Information Technology transferred from the Department of Local Affairs for FY 2017-18 for computer programming services.

**H.B. 17-1326 (JUSTICE REINVESTMENT CRIME PREVENTION INITIATIVE):** Makes a number of changes relating to maximum parole revocation periods for technical parole violations. Establishes a new crime-prevention program in the Department of Local Affairs (DOLA) to provide small business loans and grants that are designed to reduce crime and promote community development in the target communities of north Aurora and southeast Colorado Springs. Appropriates \$152,112 reappropriated funds to the Governor's Office of Information Technology transferred from the Departments of Corrections and Local Affairs for FY 2017-18 for computer programming services.

**H.B. 17-1361 (EVALUATE STATE INFORMATION TECHNOLOGY RESOURCES):** Requires the State Auditor to retain a qualified, independent third-party consulting firm to evaluate the state's implementation of information technology (IT) resources, tools, and projects. Indicates that on or before December 15, 2018, the independent firm shall submit a post-evaluation report with recommendations to the Legislative Audit Committee, the Joint Budget Committee, the Joint

Technology Committee, and the Governor's Office of Information Technology. Appropriates \$300,000 General Fund to the State Auditor for FY 2017-18 for this purpose and states that any of the appropriated money that is not expended prior to July 1, 2018, is further appropriated to the State Auditor for FY 2018-19 for the same purpose.

## 2018 SESSION BILLS

**SB 18-027 (ENHANCED NURSE LICENSURE COMPACT):** Adopts 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.

**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.

**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.

**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.

**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.

**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.

**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.

**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, 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.

**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.

**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 (OSPB) 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
<b>TOTAL</b>	<b>\$1,390,784</b>	<b>\$2,262,843</b>	<b>\$2,223,421</b>	<b>\$448,480</b>	<b>\$6,325,528</b>

**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 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

**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.

## APPENDIX C FOOTNOTES AND INFORMATION REQUESTS

### UPDATE ON LONG BILL FOOTNOTES

- 8 **Governor - Lieutenant Governor - State Planning and Budgeting, Office of State Planning and Budgeting, Evidence-based Policymaking Evaluation and Support --** This appropriation remains available through June 30, 2020.

**COMMENT:** This footnote was added in FY 2018-19 to give the Office of State Planning and Budgeting flexibility in administering grants.

- 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 through June 30, 2020.

**COMMENT:** 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

There were no requests for information for FY 2018-19.

## APPENDIX D

### DEPARTMENT ANNUAL PERFORMANCE REPORT

Pursuant to Section 2-7-205 (1)(b), C.R.S., the Department of Regulatory Agencies 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 department'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 department 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.

For consideration by the Joint Budget Committee in prioritizing the department's FY 2019-20 budget request, the FY 2017-18 Annual Performance Report and the FY 2018-19 Performance Plan can be found at the following link:

<https://www.colorado.gov/pacific/performance/governors-office>

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. OIT has provided an initial update on activities associated with H.B. 18-1325 in its annual report pursuant to H.B. 14-1203.

The following pages include the November 1, 2018 report in its entirety.



# COLORADO

## Governor's Office of Information Technology

2017 - PUBLIC SAFETY COMMUNICATIONS NETWORK - 2018



*The Public Safety Communications Network is pleased to provide this project status report on FY18 accomplishments and FY19 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 departments, including but not limited to the departments of public safety, transportation, corrections, and natural resources. The Public Safety Communications Network (PSCN) under the OIT is responsible for all things directly, and in some cases indirectly, related to public safety two-way radio voice communications. The safety of the citizens and first responders in Colorado 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 two of the other four Zone Master Site Controllers currently supporting the DTRS statewide. Zone 2 is located in Grand Junction and provides system connectivity for 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 is in the process of adding a Zone Master Site Controller on the western slope in Montrose. This new Zone Master Site Controller will be known as Zone 5. The addition of Zone 5 will provide critically needed load sharing with the currently overloaded Zone 2 Controller. Zone 5 will open 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 that are acutely proficient at utilizing the resources required to provide this mission critical service to our users.

Our technical staff provides programming, installation, and repair of mobile (vehicle) and portable (hand-held) radios for state agencies.

Our engineering staff provides 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.

Our Program Manager negotiates and manages all of our land leases, rights of way, and easements for all state transmitter sites located on private, public, federal and tribal lands.

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.

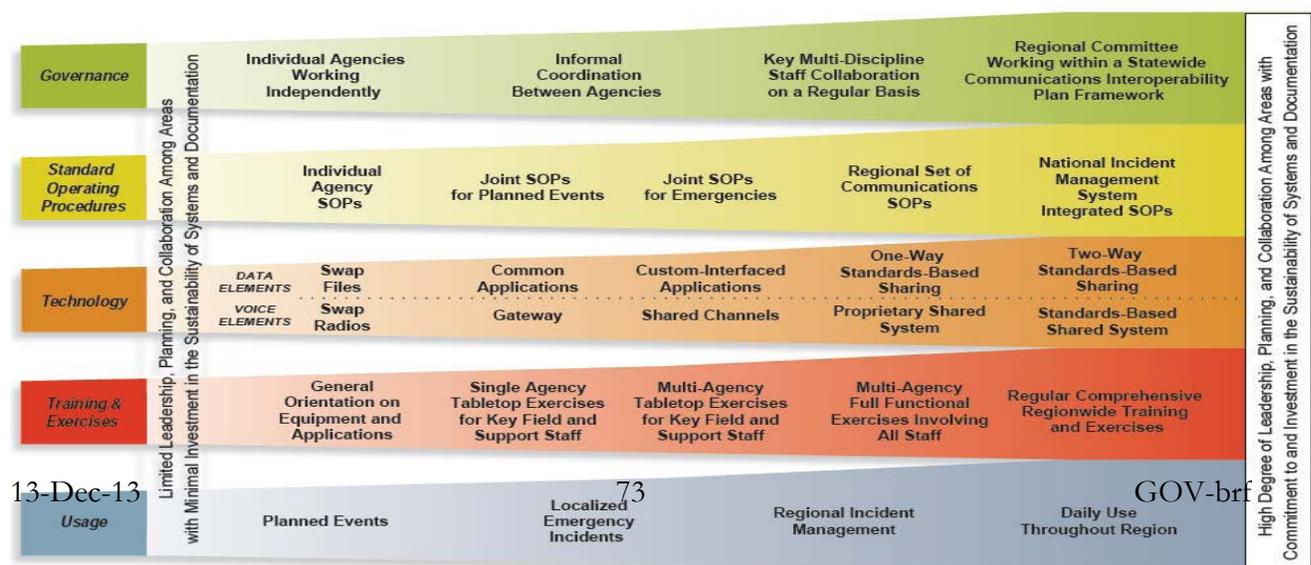
## ABOUT DTRS

- 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.



Crews at work on North Mtn.

### SAFECOM - Interoperability Continuum



## **DTRS FACTS and RECORDED STATISTICS – CURRENT**

As of October 1, 2018

- **239** active radio (tower) sites operating on five 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.
- Over **101,000** 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.
- Calendar year 2017 recorded statistics show a total of **105,733,493** calls on the DTRS, or a monthly average of **8,811,124** calls totaling **175,372 hours 36 minutes** of talk time. The majority of these voice calls are serving day-to-day operations for primary DTRS user agencies.
- January through September 2018 records show a 9-month total of **81,605,053** calls on the DTRS, or a monthly average of just over **9 million** calls totaling **133,337 hours 6 minutes** of talk time. The majority of these voice calls are serving day-to-day operations for primary DTRS user agencies.

## **PSCN PROJECT FY18 ACCOMPLISHMENTS – CURRENT**

- Replacement of legacy DTRS radio transmitters at state tower sites is ongoing. We have currently completed installation of **905 DTRS transmitters (radios) at 154 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 FY18 we have completed installation of **29 expansion transmitters at 29 sites**. Remaining installations for late 2018/early 2019 are **7 expansion transmitters at 6 transmitter sites** and **13 DTRS transmitters located at 2 tower sites**. This long-range equipment replacement 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 is on schedule with Phase One **(Metro) 100% complete**; Phase Two **(Northeast) 73% complete**; Phase Three **(Southeast) 85% complete**; Phase Four **(Southwest) 43% complete**; Phase Five **(West) is in final design and is currently 1% 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 will provide 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.



Mines Mtn DTRS and AWOS site

- The land and tower purchase for our new site in Elbert County (Cedar Point) is expected to be complete in early November, 2018. Once the property transfer is complete, the DTRS and microwave equipment is staged and prepared for installation. The Cedar Point site will be 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 is received from the Controlled Maintenance Fund and the Microwave Replacement Project.
  - Tower replacement at the Cheyenne Mountain (El Paso County) site is complete.
  - Tower replacement at the Boyero (Lincoln County) site is complete.
  - Tower replacement at the Akron (Washington Co) site is complete.
- DiagnostX hardware and software have been purchased and installed on a number of state sites. This hardware and software provides our engineering staff with an enhanced capability to monitor over 101,000 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.
- After several years of negotiations, jumping an inordinate number of hurdles, and attending countless meetings, efforts to reach agreement with the City of Greeley to subdivide and permit OIT to develop a parcel of the CDOT property located at 1420-2<sup>nd</sup> Street in Greeley are wrapping up. We expect the transfer of property from CDOT to OIT to be complete by the end of October 2018. Construction of the new DTRS tower and regional maintenance shop will begin upon completion of the land transfer. The new tower will host 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. When our new tower is complete, all equipment and antennae will be moved from the old tower and deconstruction of the old tower will commence. Once tower work is completed the property under the old tower will be returned to CDOT for their disposal or development. The 'Greeley Project' is approved and funded by the Capital Development Committee and funded through the Long Bill.



300' tower replacement at Boyero.  
Completed 2Q 2018.

## **PSCN PROJECT FY19 PROJECTS – IN PROGRESS OR CURRENTLY SCHEDULED**

- Plans for tower replacement at the Missionary Ridge (La Plata County) site has been approved. Winter weather will prevent advancement of this tower replacement project until spring thaw 2019.
- Plans for tower replacement at the Twin Mountain (Fremont County) site have been approved. Winter weather will prevent advancement of this tower replacement project until spring thaw 2019.

- Plans for construction of two new towers in Yuma and Washington counties are underway. Yuma County Board of Commissioners are purchasing property to host the PSCN tower and public safety equipment to ensure public safety communications for first responders.
- Plans for the replacement of the Toonerville tower have begun. We will be working with the land owner to accomplish this construction project as our lease requirements dictate.
- The second in a series of DTRS software platform upgrades is scheduled and on track for implementation in September 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 FY17-18, through the Public Safety Trust Fund, per HB 14-1203.
- As earlier noted, the PSCN is currently in the process of adding the Zone 5 Master Site Controller in Montrose. This project is critical for the sustainment and future growth of the DTRS on the western slope, particularly in the southwest corner of the state where there remains DTRS coverage gaps with no network ports currently available to add new sites. A room addition at the CSP dispatch center in Montrose has been selected as the most secure location to host the new Zone Controller. We expect receipt of final draft plans from the architect in the immediate future. Construction is set to begin immediately following approval of the architect plans. The equipment is currently staged and prepared for delivery and installation upon completion of the room addition. Equipment for the Zone Controller is funded through HB14-1203. Funding was achieved through cost savings realized through a 'trade-in' program with Motorola for the old transmitters and as a result of a couple local governments electing to fund their portions of the Motorola SUA.
- The statewide public safety Microwave Replacement Project will continue through 2019, as we tie up loose ends in the NE and SE rings and 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 FY19/early FY20. Appropriations for the Microwave Replacement Project are through the Capital Development Committee.
- The PSCN continues to absorb responsibility for DTRS and microwave equipment at a number of city and county sites. The majority of these sites were funded through a Department of Local Affairs grant program known as the Colorado Wireless Interoperability Network (CWIN) program. Through the CWIN program cities and counties were granted new DTRS sites with the option of assigning the DTRS and microwave equipment to the PSCN after a 5-year period of city or county ownership. A number of cities or counties have determined the PSCN is better staffed and equipped to maintain and support DTRS and microwave equipment at these sites. The PSCN has accepted responsibility for DTRS and microwave equipment at ten sites in Grand (Sunspot, North Cottonwood, San Toy), Rio Blanco (Mellen

Hill, Lobo, Marvine, Douglas Pass), Otero (LaJunta), Routt (Emerald), and Huerfano (Gardner) Counties over the period of this past year.

## **ADDRESSING STATEWIDE DTRS COVERAGE NEEDS - CURRENT**

DTRS sites were added in 2018/19 and additional sites have been identified and are in various stages of planning and development in 2019/20 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:

- **Snowmass (Pitkin County)** – This new local government expansion site fills a coverage gap in the Snowmass area of Pitkin County. This site is one of the sites involved in the Pitkin County migration from their legacy VHF system to the state DTRS. **This site provides global benefit to DTRS agencies in and around Pitkin County. This 8-channel site has been on-air, in service and fully operational beginning November 16, 2017.**
- **Highlands Ranch (Douglas County)** – This is a local government site add to an existing simulcast cell for improved coverage and better utilization of site resources. Site connectivity is achieved through multiple microwave paths to the State Zone 1 Master Site Controller in Denver. **This site provides global benefit to DTRS agencies in and around Douglas County. This 18-channel simulcast site has been on-air, in service and fully operational beginning March 22, 2018.**
- **Loge (Pitkin County)** - This new local government expansion site fills a coverage gap in areas of Pitkin County. This site is another of the sites involved in the Pitkin County migration from their legacy VHF system to the state DTRS. **This site provides global benefit to DTRS agencies in and around Pitkin County. This 10-channel site has been on-air, in service and fully operational beginning March 23, 2018.**
- **Williams (Pitkin County)** – This new local government expansion site fills a coverage gap in areas of Pitkin County. This site is another of the sites involved in the Pitkin County full migration from their legacy VHF system to the state DTRS. **This site provides global benefit to DTRS agencies in and around Pitkin County. This 8-channel site has been on-air, in service and fully operation beginning March 28, 2018.**
- **Lost Lake (Douglas County)** – This is a local government site add to an existing simulcast cell for improved coverage and better utilization of site resources. Site connectivity through multiple microwave paths to the State Zone 1 Master Site Controller in Denver. **This site provides global benefit to DTRS agencies in and around northern Douglas County. This 18-channel simulcast site has been on-air, in service and fully operational beginning September 20, 2018.**
- **Walden (Jackson County) – State ADD site** - This is a proposed site addition to provide desperately needed DTRS coverage in Jackson County. The PSCN has identified a location on Jackson County property to erect a tower and equipment shelter. We have gained approval from the FAA for the construction of the tower. We are working toward a property lease with Jackson County for the site. The Walden tower site will receive its network connectivity through our Buffalo Pass DTRS site. The tower at Buffalo Pass currently lacks capacity and height to achieve network connectivity for the Walden site. The Buffalo Pass tower is scheduled for replacement through Controlled Maintenance funding in early FY20. This will permit connectivity for the Walden site. **This site will provide global benefit to DTRS agencies in Jackson County. We hope to have this 5-channel on the air in 2019.**

- **Folsom Field (Boulder County) - State ADD site** – The University of Colorado-Boulder campus is in the process of fully migrating its public safety agencies to the DTRS. The PSCN is aggressively working with the CU Boulder campus facilities management to install a site on the light bridge at Folsom Field. **This site will provide global benefit to all DTRS agencies in and around the CU Boulder campus, the City of Boulder, and areas of Boulder County. We expect to have this 12-channel site on the air near the end of CY2018.**
- **Flagler (Kit Carson County) – State ADD site** – This site is a county owned and managed tower site. Kit Carson County has approached the PSCN to request assistance in adding DTRS equipment at this site to improve coverage along the I-70 corridor in the area of the town of Flagler. The county is currently completing tower improvements in preparation for the PSCN to add DTRS and microwave equipment at the site. **This site will provide global benefit to all DTRS agencies in and along the I-70 corridor near the Town of Flagler. We expect to have this 6-channel site on the air in late CY2018 or early CY2019.**
- **Stadtman Mesa (Rio Blanco County) – State ADD site** - This tower site is owned and managed by Rio Blanco County. It is a newly developed tower site. The county approached the PSCN to request the addition of 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 equipment has been installed at this site and microwave equipment is pending installation in the immediate future. **This site will provide global benefit for all DTRS agencies in and along the Hwy 64 corridor northwest of the Town of Meeker. Depending on winter weather conditions, we expect to have this 6-channel site on the air as soon as remaining microwave equipment is delivered and we have safe site access.**
- **Cortez (Montezuma County) – State ADD site** – This tower site is owned and managed by the City of Cortez. The city approached the PSCN to request assistance in adding DTRS 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 some level of redundancy and overlapping coverage for the City of Cortez. The city has relied 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. **This site will provide 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 PSCN expects to bring the 6-channel Cortez site on the air as soon as the building addition and the Zone 5 Controller are installed in Montrose.**

## **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. Applications for this assistance for state provided goods and services related to site development were opened July 1, 2018 and closed September 30, 2018. We did receive a number of qualifying applications and will be aiding local governments through the addition of DTRS equipment, and microwave equipment, where applicable. DTRS sites will be added at these locations:

- **Dory Hill (Gilpin County) – State ADD site** - 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 will be adding DTRS equipment at this site to fill a DTRS coverage gap in the area. The

PSCN will replace the county microwave with state microwave at a later date. PSCN expects to have the Dory Hill site on the air late CY18/early CY19.

- **Bellevue Mountain (Clear Creek County) – State ADD site** - 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 will be adding DTRS equipment at this site to fill a DTRS coverage gap along the I-70 corridor in the area of Idaho Springs. The PSCN will replace the county microwave with state microwave at a later date. PSCN expects to have the Bellevue Mountain site on the air late CY18 (depending on site access due to weather) or early CY19.
- **Silo Elbert (Elbert County) – State ADD site** - This is a county owned and managed tower site in Elbert County. The site will fill a known DTRS coverage gap in the area of Elizabeth and the town of Elbert. The site is ready for installation of DTRS equipment. Equipment has been ordered and we expect to have this DTRS site on the air by late CY18.
- **Saxon Mountain (Clear Creek County) – State ADD site** - 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 will be adding DTRS equipment at this site to fill a DTRS coverage gap along the I-70 corridor in the area of Georgetown. The PSCN will replace the county owned microwave with state microwave at a later date. PSCN expects to have the Saxon Mountain site on the air following the spring thaw in early CY19.
- **Chromo Mountain (Archuleta County) – State ADD site** - This is a tower site owned and managed by the La Plata Electric Association. Local government has approached the utility company to gain permission to add DTRS equipment and microwave equipment on this site. The PSCN is currently in the process of 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 site. The PSCN recently completed an engineering study of the tower at Sandoval Mountain. In its current condition, the Sandoval Mountain site does not meet minimum capacity requirements for the addition of the 6' microwave dish antenna to Chromo Mountain. The PSCN is currently evaluating options. This site is badly needed in this area to fill a known DTRS coverage gap.

The PSCN will again open applications January 1, 2019 and through February 2019 for the second round of assistance with state supplied goods and services to aid with the development of DTRS sites. We will utilize this round of applications for late spring/early summer 2019 projects.

## **HIGH PROFILE SUCCESS – WILD LAND FIRES 2018!**

Summer 2018 was an extremely challenging season for the PSCN regional teams. We experienced a highly active and extremely destructive wild land fire season with 1,585 fires burning in excess of 431,600 acres and destroying or damaging nearly 450 homes. **The DTRS proved, once again, to be the most reliable means of communication for public safety agencies and officials.**

During the mid-afternoon hours of June 27, 2018, the 'Spring Fire' broke out in Costilla County. The fire threatened the Forbes Park and Wagon Creek subdivisions, where an immediate evacuation order was distributed to nearly 300 homes in the area.

By the early morning hours of June 28, 2018 the fire was completely out of control and commercial power was cut in the area of the fire to ensure the safety of firefighters. Commercial power was lost at the state DTRS site on La Veta Pass, a major microwave hub site for connectivity of other DTRS sites in every direction from LaVeta.



27 June 2018 - approximately 2:30pm

Backup generator power was functioning at the site, that is until about 8:30 p.m. when it became obvious to the PSCN Pueblo Shop electronic technicians, as they watched the fire-breathing dragon come over the ridge and swallow the LaVeta DTRS site. The enormous needs for oxygen to feed the dragon suffocated the backup power generator causing it to draw a last breath and choke to death. Though without a source of commercial or generator power, the microwave radios continued to perform on backup batteries until about 3 a.m. when the batteries were drained and all electronics at the site went dark. The complete loss of service from the LaVeta DTRS site created a wide area interruption in normal operations of other connected DTRS sites in the area. PSCN techs remained in the area on standby and engaged with commanders at the incident command posts to wait for the go-ahead to gain access to the site. The PSCN site engineer was contacted while on annual leave to respond to the area and remain on standby to reach the site as soon as it was deemed safe by fire command to be escorted in.



28 June 2018 8:45pm

Over the next 30 hours the LaVeta site was inaccessible due to downed power poles, lines and trees, active fire and overall extremely dangerous conditions. A Multi-Mission Aircraft (MMA) flight early the morning of June 29 gave us an idea of what to expect when we could safely reach the site. The photo at right shows our tower and equipment shelter to the left side of the photo, still very much intact. The shiny object to the right of our tower and building is the crumbled remains of an FM radio site that could not withstand the heat and flames, and burned in the inferno.



June 29th - early morning hours MMA fly by



June 30th - mid morning escorted access to site

Mid-morning hours of June 30, fire command granted permission for our team to be escorted by firefighters and fire apparatus in to the site to do a rapid damage assessment, attempt to get the generator started, and then retreat as rapidly as possible. The photo at left is what the team witnessed upon approach to the site.

The PSCN team was amazed to find the equipment shelter and all of its contents, including the backup generator, intact and unaffected by the fire. The antennas on the tower and all other equipment directly exposed to the fire were severely damaged or destroyed.

Our crews were successful in rapidly getting the generator started.

With generator power restored, all of the transmitters (radios) inside the concrete building came to life. Unbelievably, the severely damaged microwave dish antennas remained operational and all microwave service from the site was restored. This brought the connected and dependent DTRS sites back on the air for first responders. The team quickly assessed damage and destruction to other antennas on the tower, including the DTRS antennas, which were completely destroyed. With this information the Denver shop team was mobilized to collect and deliver replacement antennas to the Pueblo Shop for staging for replacement at the earliest possible window of opportunity. The LaVeta site continued to operate on the backup generator until commercial power was restored to the site on July 10.



30 June 2018 - blackened and damaged or destroyed antennas on our tower

As the fire continued to grow by leaps and bounds, other DTRS sites in the path of the dragon were encroached upon and came in to the danger zone. PSCN teams worked closely with Huerfano and Las Animas County site managers to assist with keeping the county backup generators at these sites up and operational to keep the sites on the air.

The local governments were also assisted with advice and labor in the creation of defensible fire space to keep the fire from reaching the sites.



30 June 2018 - Severely damaged microwave dish antennas remained operational!

With the fire having left the area, on July 20 we were able to have the LaVeta tower assessed for heat related damage. Other than being blackened with soot and ash, the tower was found to be structurally sound. PSCN teams have since replaced all damaged or destroyed DTRS, VHF and microwave antennas.

We want to recognize the efforts of all of our PSCN team members in working through this series of high profile and dangerous events. Our crews put in very lengthy days, nights, weekends, and the Independence Day holiday to restore service to this site, as well as maintain all other sites and for providing assistance to local governments with keeping sites on the air for first responders.

## Lessons Learned from this catastrophic event!

- **NO LIVES WERE LOST IN THIS 108,045 ACRE FIRE!**
- **Our PSCN team members across the state are the most dedicated and selfless team of consummate professionals you will ever meet!**
- **The DTRS remains the most reliable and resilient communications system for Colorado first responders statewide.**
- **Concrete block equipment shelters on our mountaintop sites are a MUST**
  - Not a single piece of equipment inside the shelter suffered damage. Even the A/C on the outside of the shelter on the side away from the approaching flames was spared and is in use today
- **Microwave dish antennas are much more rugged and absolutely more reliable than other technologies**
- **Fiber optic cable(s) and vault(s) are at high risk of damage or destruction**
  - It can take multiple days to repair and restore service
  - Such an outage can affect consumers and first responders hundreds of miles from the actual damage
- **Cellular, Broadband and Internet Service are first to be negatively impacted in such an event – THERE IS LITTLE OR NO REDUNDANCY BUILT IN TO CELLULAR NETWORKS, ESPECIALLY IN RURAL AREAS.**

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**

<b><u>FY 14 SITE REPLACEMENT FUNDING</u></b>			<b><u>FY15 SITE REPLACEMENT FUNDING</u></b>		
<b>Site Name</b>	<b>Area / County</b>	<b>Date completed</b>	<b>Site Name</b>	<b>Area / County</b>	<b>Date completed</b>
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

**FY16 SITE REPLACEMENT FUNDING**

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	<b>Pending zoning &amp; property decision</b>	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
<b>FY17 SITE REPLACEMENT FUNDING</b>					
Rose Ridge	SW / Gunnison	31-Aug-2016	Sheridan Lake	SE / Kiowa	9-Feb-2017
Crested Butte	SW / Gunnison	30-Aug-2016	Ft. Lyon	SE / Bent	1-Nov-2016
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	<b>SITE CHANNEL EXPANSION to improve radio traffic capacity</b>		
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
<b>State &amp; State Partnering Expansion Sites FY17</b>			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
<b>FY18 SITE REPLACEMENT FUNDING</b>					
Cordova Pass	SE / Las Animas	10-Aug-2017	<b>SITE CHANNEL EXPANSION to improve radio traffic capacity</b>		
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	<b>State Expansion Sites FY18</b>		
Lookout	MET / Jefferson	<b>3-June-2018</b>	Walsenburg Air	S / Huerfano	1-Aug-2017
Riley Peak	MET / Jefferson	28-Aug-2017	Pueblo Air	S / Pueblo	7-Sep-2017
Smoky Hill	MET / Arapahoe	19-Oct-2017	Cinnamon Creek	NW / Garfield	31-Aug-2017
Denver TX Building	MET / Denver	30-Aug-2017			
Thorodin	MET / Jefferson	5-Oct-2017			
Walsenburg DTRS	S / Huerfano	1-Aug-2017			
<b>FY19 SITE REPLACEMENT &amp; CHANNEL EXPANSION TO IMPROVE CAPACITY</b>					
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	Scheduled Nov	Sterling CF +1	NE / Logan	21-Sep-18
Marble (replace)	W / Gunnison	Scheduled-pending weather	Verdemont +1	S / Custer	24-Oct-18

Emerald (replace)	NW / Routt	Pending local tower		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	Scheduled early Nov
Wildhorse +1	NE / Sedgwick	19-Sep-18		Fort Morgan +1	NE / Morgan	Scheduled early Nov
Sunset Mesa +1	W / Montrose	Scheduled early Nov		Alamosa +1	SLV / Alamosa	Scheduled early Nov
Bowen Marker +1	S / Las Animas	25-Oct-18		Pooltable +1	SLV / Rio Grande	Scheduled early Nov
Smelter +2	SW / La Plata	Scheduled early Nov		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				
<b>FY19 SITE EXPANSION (NEW SITES)</b>						
Stadtman Mesa	NW / Rio Blanco	22-Oct-18		Folsom Field	Metro / Boulder	Pending install
Cortez	SW / Montezuma	Pending Zone 5		Yuma Air	NE / Yuma	Pending tower
Flagler	NE / Kit Carson	Pending install		Loge Air	NW / Pitkin	Pending Zone 5
Walden	NW / Jackson	Pending tower				
<b>FY19 – HB18-1325 ‘DTRS COVERAGE GAP’ SITE ADDITIONS</b>						
Dory Hill	MET / Gilpin	Pending install		Saxon Mtn	MET / Clear Creek	Pending Install
Bellevue Mtn	MET / Clear Creek	Pending Install		Silo Elbert	MET / Elbert	Pending install
Chromo	SW / Archuleta	Pending tower capacity issues				

It is important to note that PSCN engineering and technical staff provides 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 154 DTRS sites, with many more 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 \$15.4 million dollars for the Colorado taxpayers, on state owned DTRS sites only. 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 FY19 funding will continue to be directly applied toward continued compliance of the DTRS radios and associated switches, routers and circuit boards at state tower sites. Full DTRS transmitter replacements will continue until complete and transmitter (channel) expansions will be installed as needed at sites demonstrating increased ‘busy’ status during incidents.

- The second in a series of DTRS software platform upgrades is scheduled and on track for implementation in September 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 systemwide. 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 FY17-18, through the Public Safety Trust Fund, per HB 14-1203.
- 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 to local governments 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 State Architect's Controlled Maintenance funding is made available.

## **CHALLENGES – CURRENT and MOST PRESSING**

The PSCN continues to face a looming crisis as a result of CDOT relocating their headquarters, resulting in the sale and development of their former headquarters at 4201 E. Arkansas Avenue in Denver. CDOT desires to sell this property and use proceeds to offset the cost of their new facility headquarters. The Arkansas property is currently in the hands of a private land development and real estate investment firm and demolition of some of the CDOT facilities at this location are currently underway.

**The PSCN has a critical presence at this site. The Arkansas property hosts the Denver Transmitter Building, better known as DTB. The site includes a microwave relay tower providing microwave connectivity for 7 adjacent DTRS sites in the ten county Denver metropolitan area. Each of those 7 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.**

**Mission critical public safety communications services are currently being disrupted as a result of the progressing land development. We are working diligently to protect our staff, the tower site, equipment facility, fiber connections, and microwave paths established at this location. The interruption or loss of services provided by this PSCN site will result in catastrophic interruption or loss of public safety radio communications, creating a life safety issue for first responders and citizens.**

Private property tower lease and easement costs continue to escalate at an alarming rate. The PSCN administrative staff works tirelessly with our private property landowners to negotiate the best and lowest possible lease costs. Unfortunately, landowners are becoming increasingly unbending in their demands for lease costs. 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**

**The PSCN team takes great pride in offering this annual report as ongoing evidence of our unwavering commitment, dedication, motivation, and capability to support, maintain, plan and execute growth of the statewide public safety communications systems.**

Funding initiatives and appropriations in support of public safety communications systems remains consistently focused on desperately needed replacements, upgrades and improvements of our state radio systems. Our PSCN teams have proven they are up to the task of aggressive installation and deployment of all equipment replacements and software upgrades for improved system coverage and reliability.

In addition to the technical and operational sustainability of these critical public safety communications systems, the **PSCN represents 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 sub-committees. 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 Rocky Mountain Harris Users Group (RMHUG), **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 our 'finger on the pulse' of our state public safety communications needs, as well as the local government issues surrounding needs for improved coverage.

## APPENDIX F

# TECH EMERGENCY FUND EXPENDITURE REPORT

### (SB 17-255)

Senate Bill 17-255, sponsored by the Joint Budget Committee, created the Technology Advancement and Emergency Fund and transferred \$2.0 million General Fund to the Fund on July 1, 2017, and on July 1, 2018. The Governor's Office of Information Technology may expend money from the Fund to cover one-time costs associated with emergency information technology expenditures to address deferred maintenance of state agency information technology assets, and to provide additional services to address unforeseen service demands. If the Office uses money from the fund to cover all or any portion of the cost of purchasing or refreshing an asset for a state agency, the asset shall become the property of the Office. The agency is required to submit a report to the Joint Budget Committee and the Joint Technology Committee regarding the expenditures from the fund.

The following pages include the November 1, 2018 report in its entirety.

## Expenditures

The table below lists FY 2017-18 expenditures from the Fund:

### 24-37.5-115(6)(a) Technology Advancement and Emergency Fund List

Date	Amount	State Agency	Purpose	Criteria Met
8/30/2017	\$24,992	Department of Revenue	Global Technology Resources, Inc. to provide a tool for assessment and data gathering to assist the Department of Revenue and the State infrastructure with its integration into the multifunctional information distribution system to determine the root cause of performance issues and outages.	This expenditure provided emergency Information Technology funding to support the Department of Revenue's Division of Motor Vehicles offices. Unacceptable network downtime was impacting customers at DMV locations resulting in increased wait times and lost revenue so the vendor was tasked with mitigating the issue with the tool. This was a one-time cost associated with an emergency.
3/19/2018	\$795	Department of Military & Veterans Affairs	Insight Public Sector to purchase some Microsoft Windows upgrades.	The emergency funds were used to provide the Colorado Department of Military & Veterans Affairs with Microsoft Windows Server standard edition which contains licensing and software. This cost addressed a deferred maintenance expense of a State IT asset.
4/3/2018	\$196,440	Department of Transportation	Tanium 12 month subscriptions to provide security protection over the CDOT system following the ransomware attack. This software is used to manage end-point servers for security patch updates, integration with crowd strike and McAfee.	During the CDOT security incident this Tanium software was used to ensure the appropriate security protection was in place to mitigate further ransomware vulnerabilities. The subscription is being utilized to roll out further Tanium to other servers across the State. This was a one-time cost associated with an emergency.
4/3/2018	\$58	Department of Transportation	Office Supplies - Postage paid to FedEx for overnight shipping of emergency desktop images put on USB drives.	Funds were used to overnight desktop images to rebuild state computers across the state after the CDOT incident that occurred. This was a one-time cost associated with an emergency.
4/3/2018	\$1,174	Department of Transportation	PCard purchases for the department team during the CDOT incident response. The purchases were	These PCard purchases were reimbursement to staff working on the CDOT incident. Many OIT employees came onsite from around the

			reimbursements that include office supplies, food, and backup storage devices.	state to assist with the response and work towards full remediation of the attack. This was a one-time cost associated with an emergency.
4/12/2018	\$6,526	Department of Transportation	PCard purchases for the department team during the CDOT incident response. The purchases were reimbursements that included travel, meals and incidentals that were incurred during this time.	This reimbursement was to staff from around the state to assist with the CDOT security incident. Staff covered shifts that extended into the evenings, as well as around the clock. This required meals and hotel accommodations for employees that came from areas outside the Denver metropolis. This was a one-time cost associated with an emergency.
4/13/2018	\$32,000	Department of Transportation	Optive Security - McAfee security onsite personnel support for the CDOT Incident.	Through Optive McAfee security consultants/professional services were hired to utilize and augment OIT staff with firewall and security related work throughout the CDOT incident. To get the CDOT system back up and running took many skilled individuals. This was a one-time cost associated with an emergency.
4/23/2018	\$42,648	Department of Personnel and Administration	Global Technology Resources, Inc. for (8) network switches that have reached end of life.	This expenditure provided the Department of Personnel and Administration (DPA) with new network switches that were at end of life and on the verge of failure. The stability of this service has been restored as well as ongoing support. This cost addressed a deferred maintenance expense of a State IT asset.
4/25/2018	\$284	Department of Transportation	In-State travel reimbursement.	Funds were paid to state employees that came onsite at CDOT during the security incident. These funds reimbursed them for travel miles, hotel accommodations, meals and incidentals. Their assistance, skills and knowledge was beneficial to the full recovery during and after the attack. This was a one-time cost associated with an emergency.
5/1/2018	\$113	Department of Transportation	In-State travel reimbursement.	Funds were paid to state employees that came onsite at CDOT during the security incident.

				These funds reimbursed them for travel miles, hotel accommodations, meals and incidentals. Their assistance, skills and knowledge was beneficial to the full recovery during and after the attack. This was a one-time cost associated with an emergency.
5/1/2018	\$104	Department of Transportation	Purchases for the department team during the CDOT incident response. The purchases were reimbursements that included travel, meals and incidentals that were incurred during this time.	This reimbursement was to staff from around the state to assist with the CDOT security incident. Staff covered shifts that extended into the evenings, as well as around the clock. This was a one-time cost associated with an emergency.
5/10/2018	\$12,016	Department of Transportation	UWork.com contractors to assist with the CDOT incident. Skilled professionals were brought in to assist the State with the ransomware security incident that occurred in February 2018.	These professionals provided the State with the assistance needed with their specific knowledge of the malware and ransomware that was used to attack the department. These professionals helped get the system back online and protection of the data that was held captive. This was a one-time cost associated with an emergency.
5/16/2018	\$80,000	Department of Higher Education	Dell Marketing - History Colorado PC refresh.	Funds were used to purchase new workstations to replace old legacy workstations at History Colorado. The old workstations were failing and causing reduced productivity and downtime was also an issue. This cost addressed a deferred maintenance expense of a State IT asset.
5/24/2018	\$19,864	Department of Revenue	Dell - power edge servers (4) to refresh the servers at the Department of Motor Vehicles (DMV) within the Department of Revenue.	Funds purchased servers and a domain controller to be replaced and upgraded for the department. These devices will elevate the security at the Department of Motor Vehicles at DOR. This cost addressed a deferred maintenance expense of a State IT asset.
5/29/2018	\$204,000	Department of Transportation	PriceWaterhouseCoopers (PWC) - CDOT Incident Response.	PWC was used to assist and help with determining the root cause on the CDOT security incident. Their on premise assistance was utilized to assess logs and incident response/resolution. They also provided a

				comprehensive report detailing the lifecycle of the ransomware infection from activation to resolution. This was a one-time cost associated with an emergency.
5/29/2018	\$5,590	Multiple	Electronics Recycling Three - Hard drive and data tape destruction.	The emergency funds provided the funding required to destroy hard drives from retired workstations that could no longer be used. This will prevent stored data that was in a record retention period to be disposed of properly and safely. This cost addressed a deferred maintenance expense of a State IT asset.
6/4/2018	\$418,400	Department of Human Services	Optive Security - (4) Palo Alto Network firewalls and data processing to upgrade the old legacy firewalls.	The Palo Alto Network firewalls and data processing that were purchased provided CDHS with computer hardware, peripherals for microcomputers, programming and software services. This cost addressed a deferred maintenance expense of a State IT asset.
6/19/2018	\$125,000	Multiple	International Business Corp (IBM) - mainframe code analysis tools and services software maintenance.	Funds were used to allow the OIT enterprise applications team in conjunction with the architect group to better understand the current state architecture of mainframe applications so those applications may be migrated off the mainframe or rewritten. The decommission initiative will continue to be supported by these funds. This cost addressed a deferred maintenance expense of a State IT asset.
6/21/2018	\$48,000	Department of Transportation	Optive Security - McAfee security onsite personnel support for the CDOT Incident.	Through Optive Security McAfee consultants/professional services were hired to utilize and augment OIT staff with firewall and security related work throughout the CDOT incident. To get the CDOT system back up and running took many skilled individuals. This was a one-time cost associated with an emergency.

6/22/2018	\$4,082	Department of Transportation	PCard related expenses related to the CDOT Incident.	The emergency funds were used for expenses relating to the CDOT security incident. This was a one-time cost associated with an emergency.
6/26/2018	\$144,975	Department of Agriculture	Nelowet Business Machines - The Colorado Department of Agriculture PC and software refresh.	Funds were used to alleviate the aging machines that had passed their refresh cycle at the Department of Agriculture. These new machines will provide the department with much needed and updated machines to continue providing the citizens of Colorado with consistent customer service. This cost addressed a deferred maintenance expense of a State IT asset.
6/28/2018	\$14,600	Multiple	Electronics Recycling Three - Hard drive and data tape destruction	The emergency funds provided the funding required to destroy hard drives from retired workstations that could no longer be used. This will prevent stored data that was in a record retention period to be disposed of properly and safely. This cost addressed a deferred maintenance expense of a State IT asset.
6/29/2018	\$100,000	Department of Human Services	Statewide Internet Portal Authority - Hyland consolidation and migration of LPI applications onto Google.	Hyland developed a tool with the ability to retire/replace existing permitting, licensing, and inspection management products by utilizing the Hyland Product Suite. This goal was to assist with containing and controlling application sprawl across the State. This cost was used to address unforeseen service demands that are happening with CDHS.
6/30/2018	\$1,536	Department of Transportation	Purchases for the department team during the CDOT incident response. The purchases were reimbursements that included travel, meals and incidentals that were incurred during this time.	This reimbursement was to staff from around the state to assist with the CDOT security incident. Staff covered shifts that extended into the evenings, as well as around the clock. This was a one-time cost associated with an emergency.
7/9/2018	\$43,150	Department of Transportation	Covendis contractors to assist with the Colorado Department of Transportation incident.	These professionals provided the State with the assistance needed with their specific knowledge of the malware and ransomware

				that was used to attack the department. These professionals helped get the system back online and protection of the data that was held captive. This was a one-time cost associated with an emergency.
7/16/2018	\$5,092	Department of Transportation	UWork.com contractors to assist with the Colorado Department of Transportation incident.	These professionals provided the State with the assistance needed with their specific knowledge of the malware and ransomware that was used to attack the department. These professionals helped get the system back online and protection of the data that was held captive. This was a one-time cost associated with an emergency.
<b>FY 2018 Total</b>	<b>\$1,531,439</b>			

24-37.5-115(6)(b)

- The departments listed above in the detailed breakout benefited from the expenditures and purchases listed.

24-37.5-115(6)(c)

- Expenditures for the agencies listed above were paid from the Fund to supplement their state operating budgets.

# APPENDIX G

## 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, 2018 report in its entirety.



**COLORADO**

**Governor's Office of  
Information Technology**



## Asset Inventory and Refresh Cycle Report - SB14-169

November 1, 2018

*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, non-productivity software on state computers for the agencies supported by the Office of Information Technology (OIT).

*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 desktop computers and 3 year lifecycle refresh plan for laptop and tablets based on Gartner Industry Standard Refresh Cycle research, except CDHS which has a 3 year lease agreement
- Recommended professional services
- Recommended project planning

Personal computer estimated costs are based on the following chart.

	<b>Current FY 2018-19</b>	<b>FY 2019-20</b>	<b>FY 2020-21</b>	<b>FY 2021-22</b>	<b>FY 2022-23</b>
<b>Standard Desktop</b>	\$826	\$834	\$842	\$851	\$860
<b>Standard Laptop</b>	\$1,052	\$1,063	\$1,073	\$1,084	\$1,095
<b>High End Desktop</b>	\$1,276	\$1,288	\$1,301	\$1,314	\$1,327
<b>High End Laptop</b>	\$1,618	\$1,635	\$1,651	\$1,667	\$1,684
<b>Tablet Computer</b>	\$1,712	\$1,730	\$1,747	\$1,764	\$1,800
<b>Productivity*</b>	Microsoft ETLA \$101/year/user				
<b>Google Apps</b>	Actual charges per agency				

\*Clarification of inclusions later in the document.

## Section II – Data Detail

### Trends:

- With an overall increase of 24.8% in mobile computers (laptops and tablets) and a decrease of 9% of desktop computers, OIT continues to see a trend in which mobile computers are replacing desktops as the work environment becomes more mobile. In addition OIT is seeing an increase in providing more than one computer per person to assist with the ability to be mobile.
- In the November 2017 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. The November 2018 report shows a large increase in tablet computers. OIT expects to continue seeing this trend of increased tablet computers, due to the portability and lighter weight.

### 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)	36,117
Computers eligible for ongoing refresh (excludes DOC Inmate computers)	34,275
Operating System versions	5
Productivity Software versions	8
5 years old or less (All computers - DOC Inmate and >5 yr. old computers)	30,060

Greater than 5 years old	4,215
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Personal Computer - Projected refresh costs summary by fiscal year:

Fiscal Year	Number of				Projected Costs (Computer, Software, Contractor)
	Desktops	Laptops	Tablets	Contractor hours	
<b>FY 2018-19</b>	4,813	1,581	173	16,180	\$15,544,049
↳ <i>Greater than 5 Yrs. old*</i>	2,835	1,302	78	10,538	\$5,105,022
↳ <i>Current FY refresh</i>	1,978	279	95	5,643	\$10,439,027
<b>FY 2019-20</b>	4,477	3,714	1,278	23,673	\$19,464,955
<b>FY 2020-21</b>	4,473	3,713	1,279	23,663	\$ 19,670,525
<b>FY 2021-22</b>	4,473	3,718	1,278	23,673	\$ 19,787,582
<b>FY 2022-23</b>	4,475	3,714	1,276	23,663	\$ 19,915,515

\*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 September 15, 2018.
- FY 2018-19 numbers are based on the computers eligible for refresh as of September 15, 2018 using the 4-year refresh cycle.
- Both >5 Year and FY 2018-19 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 2019-20-FY 2022-23 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 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.
- 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 \$32 per hour.
- Recommended project planning
  - Upon approval of proposed refresh cycles, the Deskside team would work together to plan agency refreshes based on workloads, 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 2018-19*):

Cost title	Assumptions	Methodology Formula
Hardware Refresh costs	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	$(\text{Vendor A cost} + \text{Vendor B cost}) / 2 = \text{Hardware refresh cost} + 1\% \text{ increase inflation per year.}$

	<p>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><i>Example (CDA):</i>  Standard desktop configuration  40 x \$834 = \$33,360</p> <p>High end laptop configuration  58 x \$1635 = \$94,830</p> <p>Standard tablet configuration  22 x \$1730 = \$38,060</p> <p>\$33,360+\$94,830+\$38,060 = \$166,250</p>
Google email and apps cost**	<p><b>Common policy actual costs</b> and estimates provided by OIT Fiscal office 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> <p><i>Example (CDA):</i>  = \$28,339</p> <p><i>Example (CDOR):</i>  = \$145,434</p>
Microsoft Office Suite cost	<p>Quote from software vendor.</p> <ul style="list-style-type: none"> <li>Only one agency, History Colorado, has not moved to the Microsoft Enterprise License Agreement (ETLA) are also calculated with no software assurance. Updated software version would have to be purchased with new device, plus required client access licenses.</li> <li>Agencies with an ELA are calculated at the cost based on the Microsoft Enterprise agreement * device, although the licenses are per user, one user can have multiple devices.</li> </ul> <p><i>Cost includes Office Pro Plus, CAL licenses, Windows Enterprise upgrade and Mobility suite.</i></p>	<p><i>Example (Hist-no ETLA):</i>  53 devices x 338 Non-ELA = \$17,914</p> <p><i>Example (CDOR):</i>  1366 devices x 155 ETLA per year/user = \$211,730</p>
Total Software Refresh Cost	<p>Google Cost + Microsoft cost = Total software costs</p>	<p><i>Example (CDA):</i>  \$28,339 + \$74,865 = \$103,204</p> <p><i>Example (CDOR):</i>  \$145,434 + \$211,730 = \$357,164</p>
Operating System software costs	<p>Operating System software is included in the office cost as part of the ELA, and as part of the computer purchase if not part of the ELA</p>	<p>No separate calculation - included with Microsoft or Computer cost.</p>

<p>Professional Services Hours</p>	<p>Current contract with Covendis for contractor is good for 5 years.</p> <p>Current rate paid: \$32 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 FY2019-20:</i>            9469 computers x 2.5 hours = 23,673 hours            23,673 hrs. x \$32 = \$757,520</p>
<p>Professional Services Number of Employees</p>	<p>2080 working hours in a year - rounded up to account for sick and vacation time of contract staff.</p>	<p>Professional Services Hours / 2080 = Number of contractors (rounded up to whole number)</p> <p><i>Example FY2017-18:</i>            23,673 hours / 2080 = 12 rounded up to whole person</p>

\*\* OIT has corrected the Google costs based on Common Policy actual charges per agency for all accounts instead of only base on computers refreshed.

Appendix A - Asset Inventory Summary by Agency

State of Colorado																				
SB 14-169 Personal Computer Annual Report																				
COMPUTER ASSET INVENTORY SUMMARY BY AGENCY																				
as of September 15, 2018																				
Agency	Device Type Totals				Operating System					Productivity Suite Software										
	Desktop	Laptop	Windows Tablets	Total Devices	Apple iOS	Windows XP	Windows 7	Windows 8	Windows 10	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
CDA	161	233	89	483	0	0	160	2	321	0	0	483	0	0	0	1	96	257	129	0
CDHS	1813	1799	562	4174	0	2	2323	10	1839	0	0	0	0	0	0	0	4147	1	13	13
CNTY	3732	2156	717	6605	0	0	5889	0	716	0	6605	4476	0	0	0	0	4745	0	46	0
CDLE	1661	707	35	2403	13	0	1811	4	575	0	13	0	0	0	0	0	1811	0	579	0
CDOR	826	484	56	1366	0	0	976	0	390	0	0	0	0	0	7	2	1342	0	14	0
CSTARS	1378	15	0	1393	0	0	1391	0	2	0	0	0	0	0	0	0	1393	0	0	0
CDOT	4	2112	2151	4267	4	0	0	0	4263	0	4	0	0	0	0	0	0	0	4263	0
CDPHE	652	1093	352	2097	0	4	1047	10	1036	0	0	0	0	0	0	89	29	1449	530	0
CDPS	404	901	647	1952	0	1	1117	54	780	0	0	1952	0	0	0	12	447	807	686	0
CEO	33	59	0	92	2	0	15	12	63	0	2	0	0	0	0	3	0	21	66	0
DMVA	41	0	0	41	0	0	0	0	41	0	0	0	0	0	0	0	17	0	24	0
DNR	701	1509	68	2278	0	0	888	6	1384	0	0	0	0	1	862	86	118	1211	0	0
DOC	3410	481	0	3891	0	4	1799	0	2088	0	0	0	2721	0	0	9	67	643	413	2
INMATE	1840	2	0	1842	0	1051	791	0	0	0	0	0	99	0	0	0	1	793	0	0
DOLA	148	86	4	238	0	0	78	0	160	0	0	0	0	0	0	1	136	0	101	0
DORA	378	308	4	690	0	0	457	0	233	0	0	0	0	0	0	0	447	0	241	0
DPA	334	143	0	477	4	1	226	1	245	0	4	0	0	0	0	204	1	30	248	0
GOV	73	110	0	183	24	0	116	1	42	0	24	0	0	0	0	50	4	12	47	0
HCPF	12	663	0	675	0	0	22	0	653	0	0	0	0	0	0	0	0	0	0	675
HIST	90	121	0	211	2	0	89	7	113	0	2	0	0	0	0	75	1	109	0	0
OEDIT	39	192	0	231	30	0	153	0	48	0	30	0	0	0	0	90	3	0	51	0
OITHQ	120	362	0	482	24	1	161	4	292	0	24	0	0	0	0	156	1	21	292	0
TREAS	39	7	0	46	0	0	36	0	10	0	0	0	0	0	0	17	7	7	9	0
<b>Totals</b>	<b>17889</b>	<b>13543</b>	<b>4685</b>	<b>36117</b>	<b>103</b>	<b>1064</b>	<b>19545</b>	<b>111</b>	<b>15294</b>	<b>0</b>	<b>6708</b>	<b>6911</b>	<b>2820</b>	<b>0</b>	<b>8</b>	<b>1571</b>	<b>14781</b>	<b>4268</b>	<b>8963</b>	<b>690</b>

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, 2018																								
Agency	Configuration				FY 2019-20				FY 2020-21				FY 2021-22				FY 2022-23							
	Desktop	Laptop	Tablet	MS ETLA	Desktop	Laptop	Tablet	Hardware Refresh Cost	Software Refresh Cost	Desktop	Laptop	Tablet	Hardware Refresh Cost	Software Refresh Cost	Desktop	Laptop	Tablet	Hardware Refresh Cost	Software Refresh Cost					
CDA *	S	H	S	Yes	40	58	22	\$166,250	\$103,204	40	58	23	\$169,619	\$103,204	40	59	22	\$171,201	\$103,204	41	58	22	\$172,532	\$103,204
CDHS	S	S	S	Yes	605	599	188	\$1,486,547	\$1,115,716	604	600	187	\$1,479,057	\$1,115,716	604	600	187	\$1,494,272	\$1,115,716	605	599	187	\$1,512,805	\$1,115,716
CNTY	S	S	S	Yes	1244	718	239	\$2,214,200	\$1,023,775	1244	719	239	\$2,236,468	\$1,023,775	1244	719	239	\$2,259,638	\$1,023,775	1244	719	239	\$2,287,345	\$1,023,775
CDLE *	H	S	S	Yes	416	176	9	\$738,466	\$524,816	415	177	9	\$745,559	\$524,816	415	177	9	\$753,054	\$524,816	415	177	8	\$758,920	\$524,816
CDOR	S	S	S	Yes	206	121	14	\$324,647	\$357,164	207	121	14	\$328,585	\$357,164	206	121	14	\$331,166	\$357,164	207	121	14	\$335,715	\$357,164
CSTARS	S	S	S	Yes	345	4	0	\$291,982	\$215,915	344	4	0	\$293,940	\$215,915	345	4	0	\$297,931	\$215,915	344	3	0	\$299,125	\$215,915
CDOT *	H	S	S	Yes	1	528	538	\$1,493,292	\$932,539	1	528	538	\$1,507,731	\$932,539	1	528	538	\$1,522,698	\$932,539	1	528	537	\$1,546,087	\$932,539
CDPHE	S	S	S	Yes	163	273	88	\$578,381	\$499,216	163	274	88	\$584,904	\$499,216	163	273	88	\$589,877	\$499,216	163	273	88	\$597,515	\$499,216
CDPS *	H	H	S	Yes	101	226	161	\$778,128	\$484,523	101	225	162	\$785,890	\$484,523	101	225	162	\$793,557	\$484,523	101	225	162	\$804,527	\$484,523
CEO	S	S	S	Yes	9	14	0	\$22,388	\$14,280	8	15	0	\$22,831	\$14,280	8	15	0	\$23,068	\$14,280	8	15	0	\$23,305	\$14,280
DMVA	S	S	S	Yes	10	0	0	\$8,340	\$8,156	11	0	0	\$9,262	\$8,156	10	0	0	\$8,510	\$8,156	10	0	0	\$8,600	\$8,156
DNR	H	H	S	Yes	176	377	17	\$872,493	\$557,096	175	377	17	\$879,801	\$557,096	175	377	17	\$888,397	\$557,096	175	378	17	\$899,377	\$557,096
DOC	S	S	S	Yes	852	121	0	\$839,191	\$1,153,453	853	120	0	\$846,966	\$1,153,453	852	120	0	\$855,132	\$1,153,453	853	120	0	\$864,980	\$1,153,453
INMATE	S	S	S	Yes	0	0	0	\$0	\$285,510	0	0	0	\$0	\$285,510	0	0	0	\$0	\$285,510	0	0	0	\$0	\$285,510
DOLA	S	H	S	Yes	37	22	1	\$68,558	\$55,375	37	21	1	\$67,572	\$55,375	37	22	1	\$69,925	\$55,375	37	21	1	\$68,984	\$55,375
DORA *	S	S	S	Yes	95	77	1	\$162,811	\$163,324	94	77	1	\$163,516	\$163,324	95	77	1	\$166,077	\$163,324	94	77	1	\$166,955	\$163,324
DPA	S	S	S	Yes	83	36	0	\$107,490	\$113,097	84	35	0	\$108,283	\$113,097	83	36	0	\$109,657	\$113,097	84	36	0	\$111,660	\$113,097
GOV	S	S	S	Yes	18	28	0	\$44,776	\$48,638	19	27	0	\$44,969	\$48,638	18	28	0	\$45,670	\$48,638	18	27	0	\$45,045	\$48,638
HCPE *	S	H	S	Yes	3	166	0	\$273,912	\$156,783	3	165	0	\$274,941	\$156,783	3	166	0	\$279,275	\$156,783	3	166	0	\$282,124	\$156,783
HIST	S	S	S	No	23	30	0	\$51,072	\$17,914	22	30	0	\$50,714	\$17,576	23	30	0	\$52,093	\$17,914	22	31	0	\$52,865	\$17,914
OEDIT	S	S	S	Yes	10	48	0	\$59,364	\$35,805	9	48	0	\$59,082	\$35,805	10	48	0	\$60,542	\$35,805	10	48	0	\$61,160	\$35,805
OTHQ	H	H	S	Yes	30	91	0	\$187,425	\$180,429	30	90	0	\$187,620	\$180,429	30	91	0	\$191,117	\$180,429	30	90	0	\$191,370	\$180,429
TREAS	S	S	S	Yes	10	1	0	\$9,403	\$9,819	9	2	0	\$9,724	\$9,819	10	2	0	\$10,678	\$9,819	10	2	0	\$10,790	\$9,819
<b>Column Totals</b>					<b>4477</b>	<b>3744</b>	<b>1278</b>	<b>\$10,759,116</b>	<b>\$ 8,056,529</b>	<b>4473</b>	<b>3743</b>	<b>1279</b>	<b>\$10,857,134</b>	<b>\$ 8,056,191</b>	<b>4473</b>	<b>3748</b>	<b>1278</b>	<b>\$10,973,633</b>	<b>\$ 8,056,529</b>	<b>4475</b>	<b>3744</b>	<b>1276</b>	<b>\$ 11,101,786</b>	<b>\$ 8,056,529</b>
<b>Hardware Refresh Detail</b>					Desktop: \$4,023,802				Desktop: \$4,097,664				Desktop: \$4,140,809				Desktop: \$4,185,674							
					Laptop: \$4,439,168				Laptop: \$4,525,057				Laptop: \$4,578,332				Laptop: \$4,619,312							
					Tablet: \$2,187,936				Tablet: \$2,234,413				Tablet: \$2,254,392				Tablet: \$2,296,800							
					<b>\$10,660,906</b>				<b>\$10,857,134</b>				<b>\$10,973,633</b>				<b>\$11,101,786</b>							
<b>Software Refresh Detail</b>					Google Apps: \$2,473,185				Google Apps: \$2,473,185				Google Apps: \$2,473,185				Google Apps: \$2,473,185							
					Productivity Suite \$ 5,583,344				Productivity Suite \$ 5,583,006				Productivity Suite \$ 5,583,344				Productivity Suite \$ 5,583,344							
					<b>\$8,056,529</b>				<b>\$8,056,191</b>				<b>\$8,056,529</b>				<b>\$8,056,529</b>							
<b>Professional Services</b>					Service Hours: 23,673				Service Hours: 23,663				Service Hours: 23,673				Service Hours: 23,663							
					Staff #: 12				Staff #: 12				Staff #: 12				Staff #: 12							
					<b>\$767,520</b>				<b>\$767,200</b>				<b>\$767,520</b>				<b>\$767,200</b>							
<b>Grand Total</b>					<b>Cost: \$ 19,464,965</b>				<b>Cost: \$ 19,670,525</b>				<b>Cost: \$ 19,787,682</b>				<b>Cost: \$ 19,915,515</b>							

\* Agencies who have Microsoft Enterprise Agreements will not need to re-purchase the MS Office Suite  
 Configuration: S = Standard configuration, H = Highend configuration

## Part B – Network Report

### Section I – Executive Summary

The report lists asset inventory as of October 19, 2018 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:

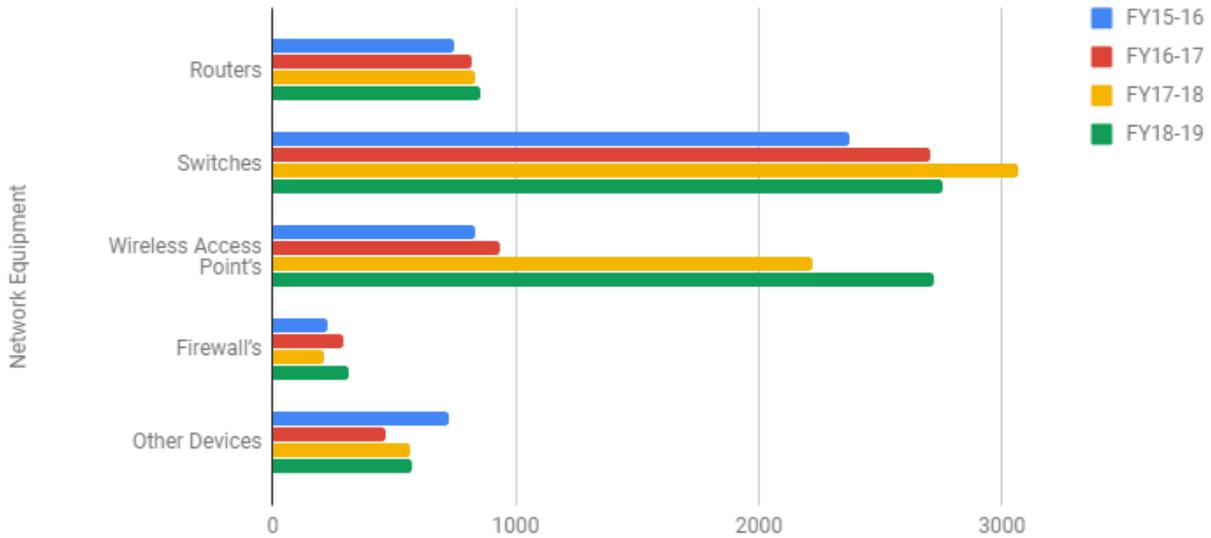
- **Router** - A router is a networking device that forwards data packets between computer networks. Routers perform the "traffic directing" functions on the Internet. A data packet is typically forwarded from one router to another through the networks that constitute the internetwork until it reaches 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 Modules, Power Supplies, 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
Routers	747	820	832	858
Switches	2,376	2707	3065	2758
Wireless Access Points	836	933	2220	2718
Firewalls	228	289	210	310
Other Devices	726	467	568*	571
<b>Total Devices</b>	<b>4,913</b>	<b>5,216</b>	<b>6895</b>	<b>7215</b>

\*The significant difference in other devices between this year and last year were duplicates power supplies and module cards identified.

FY15-16 , FY16-17, FY17-18 and FY18-19



**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 FY 2015-16 R-01 IT Infrastructure Refresh and various funded agency projects and initiatives, OIT refreshed close to 8% of aging network equipment in FY 2017-18.

OIT Network infrastructure equipment refresh recommendations are based on 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.

This funding request allowed OIT to refresh aging core network equipment in both data centers, which are priority devices that provide connectivity and support to all agencies. Equipment and cost projections fluctuate each year depending on critical equipment needs. The projected total cost of needed refreshes was approximately \$3 million. With a combination of decision item funds, as well as individual agency projects and initiatives, the Office was able to provide refreshes totaling just over \$2.7 million in FY 2017-18.

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 table below identifies the projected costs of refreshed network equipment per agency and the actual costs spent in FY18:

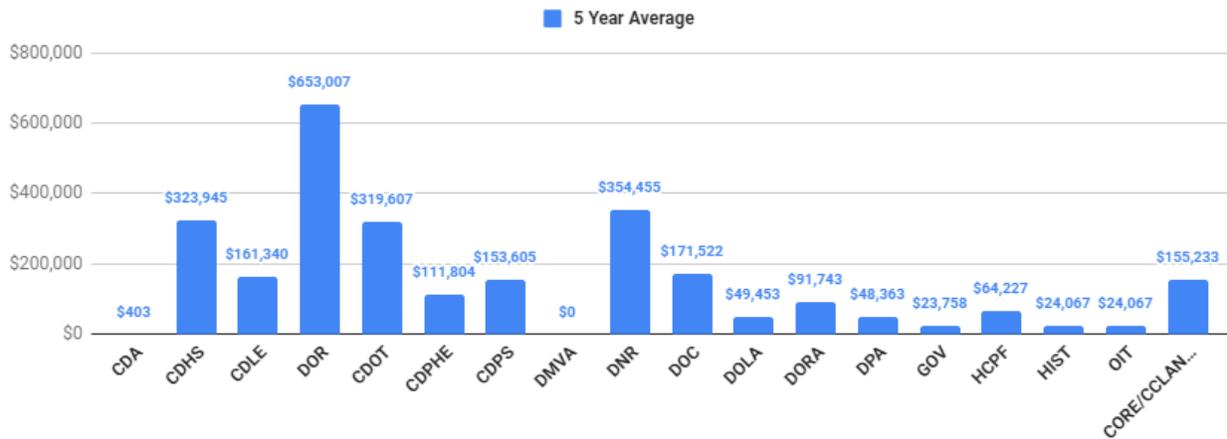
<b>Total All Agencies</b>	<b>\$3,029,254</b>	<b>Total All Agencies</b>	<b>\$2,792,696</b>
<b>Projected costs per Agency</b>	<b>FY18</b>	<b>Actual costs per Agency</b>	<b>FY18</b>
CDA	\$0	CDA	\$0
CDHS	\$220,625	CDHS	\$383,214
CDLE	\$448,000	CDLE	\$157,1149
DOR	\$246,542	DOR	\$162,335
CDOT	\$60,000	CDOT	\$574,148
CDPHE	\$44,170	CDPHE	\$44,170
CDPS	\$78,976	CDPS	\$7,666
DMVA	\$0.00	DMVA	\$0
DNR	\$375,789	DNR	\$151,278
DOC	\$321,200	DOC	\$378,044
DOLA	\$11,330	DOLA	\$11,057
DORA	\$0.00	DORA	\$11,0000
DPA	\$92,921	DPA	\$70,048
GOV	\$5465	GOV	\$0
HCPF	\$63,200	HCPF	\$0
HIST	\$0.00	HIST	\$0
OIT	\$106,772	OIT	\$0
CORE/CCLAN ALL	\$954,264	CORE/CCLAN ALL	\$842,623

The chart below shows projected costs, list price of equipment that is end of support between FY 2018-19 and FY 2022-23. With the Enterprise Agreement OIT can expect at least a 42% discount off of list price with the manufacturer, costs shown in the discounted row:

	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	5 Year Average
List Price	<b>\$3,972,823</b>	<b>\$1,493,495</b>	<b>\$3,110,137</b>	<b>\$4,862,033</b>	<b>\$3,314,914</b>	<b>\$3,350,680</b>
Discount Cost	<b>\$2,304,238</b>	<b>\$866,228</b>	<b>\$1,803,880</b>	<b>\$2,819,980</b>	<b>\$1,922,651</b>	<b>\$1,943,395</b>

The chart below shows projected costs, list price of equipment that is end of support for each agency between FY 2018-19 and FY 2022-23:

	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	5 Year Average
CDA	\$0	\$0	\$2014	\$0	\$0	\$403
CDHS	\$342,483	\$158,531	\$358,747	\$505,771	\$254,195	\$323,945
CDLE	\$409,557	\$29,328	\$106,521	\$108,072	\$153,222	\$161,340
DOR	\$257,287	\$463,341	\$1,597,430	\$226,987	\$706,308	\$653,077
CDOT	\$838,959	\$0	\$137,764	\$419,240	\$201,075	\$319,607
CDPHE	\$10,356	\$102,576	\$51,259	\$39,351	\$355,478	\$111,804
CDPS	\$366,861	\$0	\$214,266	\$24,068	\$162,833	\$153,605
DMVA	\$0	\$0	\$0	\$0	\$0	\$0
DNR	\$999,700	\$82,872	\$577,787	\$22,770	\$89,149	\$354,455
DOC	\$0	\$294,365	\$200,625	\$33,432	\$329,189	\$171,522
DOLA	\$22,660	\$38,122	\$0	\$171,15+	\$15,325	\$49,453
DORA	\$286,565	\$0	\$65,002	\$39,351	\$67,80	\$91,743
DPA	\$42,411	\$0	\$43,028	\$156,379	\$0	\$48,363
GOV	\$15,821	\$0	\$0	\$97,915	\$5,054	\$23,758
HCPF	\$91,824	\$0	\$12,650	\$201,226	\$16,845	\$64,509
HIST	\$0	\$0	\$101,200	\$223,230	\$67,908	\$58,227
OIT	\$48,356	\$0.00	\$11,900	\$48,038	\$12,041	\$24,067
CORE/CCLAN All	\$141,902	\$144,800	\$130,490	\$70,376	\$288,660	\$155,233



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 agencies 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, 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; these systems can be accessed and monitored, 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	FY2018-19
<b>Monitoring and Management Tools</b>	63
<b>Network Utilities</b>	62
<b>Network Access Control</b>	14
<b>Screen Capture Tool</b>	5
<b>Network Configuration Editor</b>	7
N/A	12
<b>Total installs</b>	<b>163</b>

Category Definitions:

- **Monitoring and Management Tools:**
  - These tools installed on servers to constantly monitor and manage the wired and the wireless networks (e.g. SolarWinds, Cisco Prime, NetBrain)
- **Network Utilities:**
  - These utilities 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 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 installed to take a snapshot the whole /Partial of the screen (e.g. greenshot, snipping tool )
- Network Configuration Editor:
  - These software used 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:

	<b>FY 2018-19</b>	<b>FY 2019-20</b>	<b>FY 2020-21</b>	<b>FY 2021-22</b>	<b>FY 2022-23</b>
<b>Total projected cost</b>	\$510,400	\$561,440	\$617,581	\$679,340	\$747,274

Section II – Data Detail

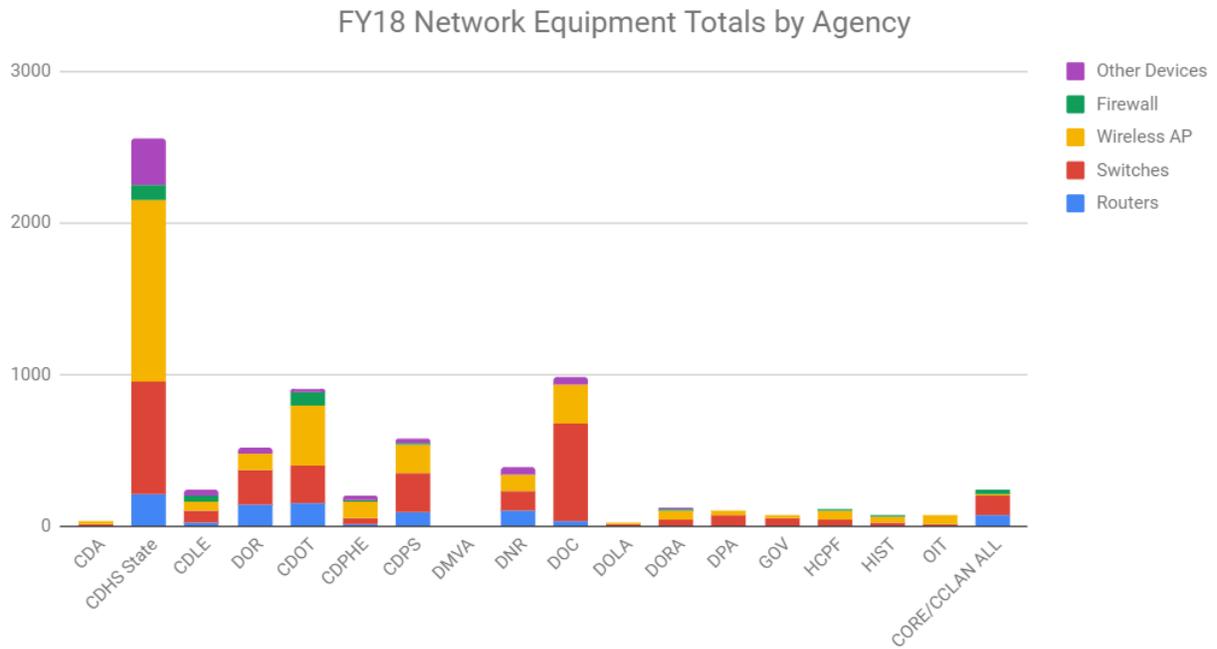
Data included:

- Count of network equipment as of October 19, 2018
  - 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 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 are accounted 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.
  - Note that in some instances the acquisition date is so old that 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 lifecycle 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 spares than pay 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 FY 2017-18:

Total All Agencies	<b>858</b>	<b>2758</b>	<b>2718</b>	<b>310</b>	<b>571</b>	7215
	Routers	Switches	Wireless AP	Firewall	Other Devices	Total Devices
CDA	3	9	19	4	0	35
CDHS	213	739	1200	96	309	2758
CDLE	20	82	62	39	33	236
DOR	144	228	101	6	43	522
CDOT	151	251	397	88	14	901
CDPHE	10	42	112	5	28	197
CDPS	96	257	186	9	32	580
DMVA	0	6	0	0	0	6
DNR	98	129	112	1	52	392
DOC	37	643	254	2	42	978
DOLA	2	10	11	1	0	24
DORA	2	42	57	6	15	122
DPA	2	67	28	5	2	104
GOV	1	52	18	1	0	72
HCPF	4	36	65	2	1	108
HIST	2	19	38	14	0	73
OIT	0	14	54	3	0	71
CORE/CCLAN						
ALL	73	132	4	28	0	237

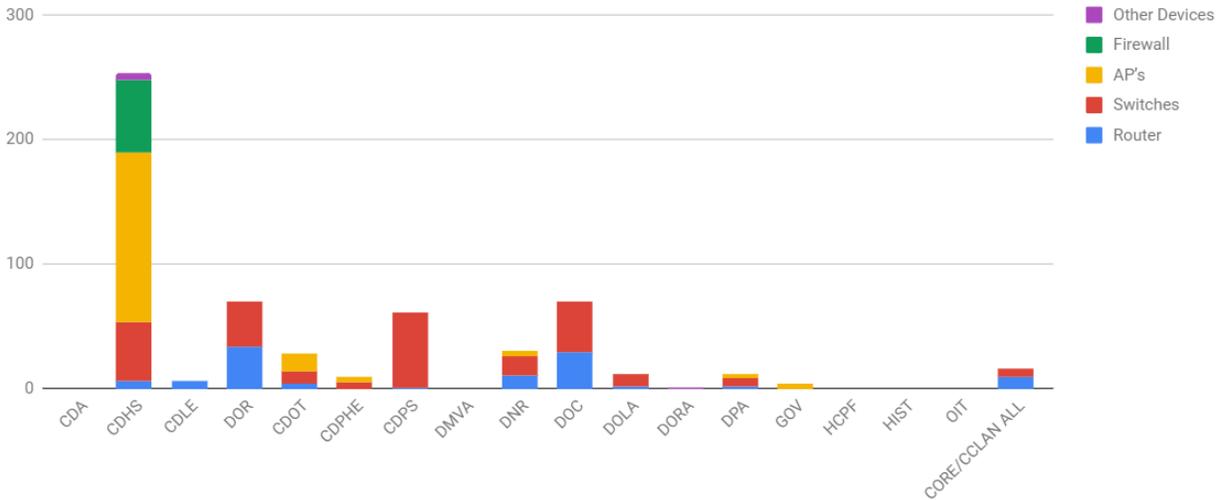


Network Equipment Refreshed in FY 2017-18:

Total All Agencies FY 2017-18	106	231	168	58	6	569
	Routers	Switches	AP's	Firewall	Other Devices	Total Devices
CDA	0	0	0	0	0	0
CDHS	6	48	136	58	5	253
CDLE	6	0	0	0	0	6
DOR	34	36	0	0	0	70
CDOT	4	10	15	0	0	29
CDPHE	0	5	5	0	0	10
CDPS	1	60	0	0	0	61
DMVA	0	0	0	0	0	0
DNR	11	15	5	0	0	31
DOC	30	40	0	0	0	70
DOLA	2	10	0	0	0	12
DORA	0	0	0	0	1	1
DPA	2	7	3	0	0	12
GOV	0	0	4	0	0	4
HCPF	0	0	0	0	0	0
HIST	0	0	0	0	0	0

OIT	0	0	0	0	0	0
CORE/CCLAN						
ALL	10	0	0	0	0	10

FY18 Network Devices Refreshed by Agency

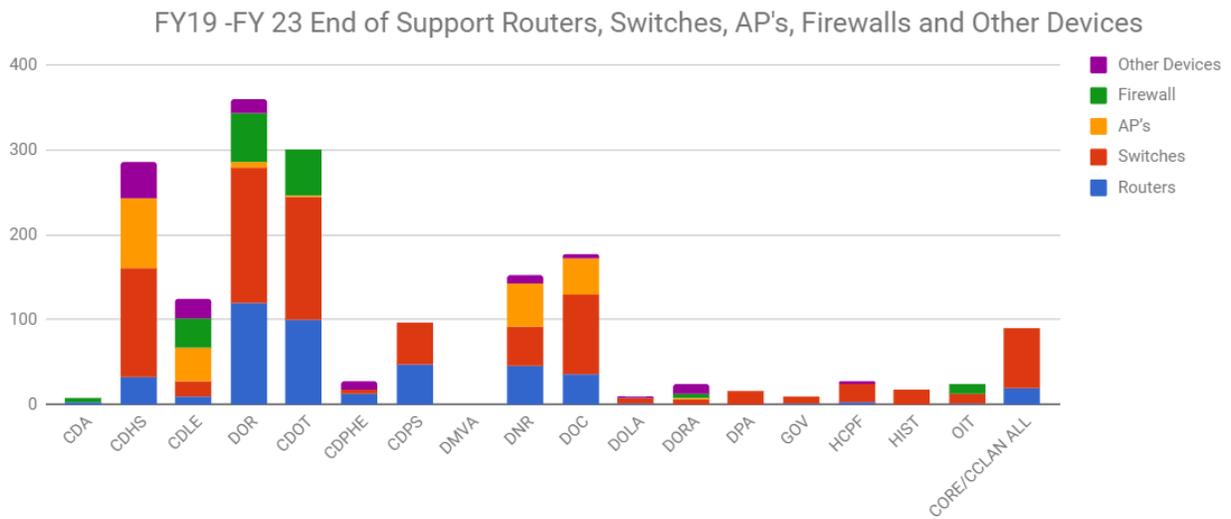


Network Equipment Totals by Agency that are end of support and targeted to be replaced between FY 2018-19 and FY 2022-23:

Total All Agencies FY 2018-19 – FY 2022-23	309	802	225	93	125	1,674
	Routers	Switches	AP's	Firewall	Other Devices	Total Devices
CDA	2	1	0	0	0	3
CDHS	32	129	82	0	42	285
CDLE	9	19	39	35	22	124
DOR	119*	160	7	57*	17	303
CDOT	100	145	2	53	0	300
CDPHE	13	5	0	0	10	28
CDPS	48	48	0	0	1	97
DMVA	0	0	0	0	0	0
DNR	45	46	51	0	10	152

DOC	35	94	43	0	5	177
DOLA	1*	6	0	1*	2	9
DORA	0	6	1	5	12	24
DPA	0	16	0	0	0	16
GOV	1	8	0	0	0	9
HCPF	3	21	0		4	28
HIST	0	17	0	0	0	17
OIT	1	11	0	0	0	12
CORE/CCLAN ALL	20	70	0	0	0	90

\*items that currently serve a dual purpose for routing and security. When replaced may be separate devices



## Part C – Server Report

### Section I – Server Summary

The report lists asset inventory as of September 14, 2018 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 the traditional way of doing things and involve a piece(s) of hardware that are configured to perform a certain set of tasks. Generally this hardware is in your 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	831
Virtual Servers	2,706
<b>Total Servers</b>	<b>3535</b>

Server Asset Inventory by agency

Agency	Physical Servers	Virtual Servers
<b>Total</b>	<b>831</b>	<b>2706</b>
CDA	20	22
CDHS State	91	145
CDLE	79	395
CDOR	171	117
CDOT	46	305

CDPHE	34	237
CDPS	70	148
DMVA	4	12
DNR	78	218
DOC	112	206
DOLA	5	37
DORA	4	67
DPA	17	137
GOV	6	15
HCPF	5	37
HIST	3	19
OIT	90	583

**Section II - Server Refresh Cycle Schedule**

OIT has developed a process of a statewide life cycle 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 allows for a much lower cost to the agencies, allows for agency servers to be housed in a much 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.

Agency	Total Servers	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
<b>Total</b>	3585	821	827	921	1016
CDA	43	10	12	11	10
CDHS State	191	48	48	47	48
CDLE	538	111	111	158	158
CDOR	328	83	83	83	79
CDOT	372	70	70	70	162

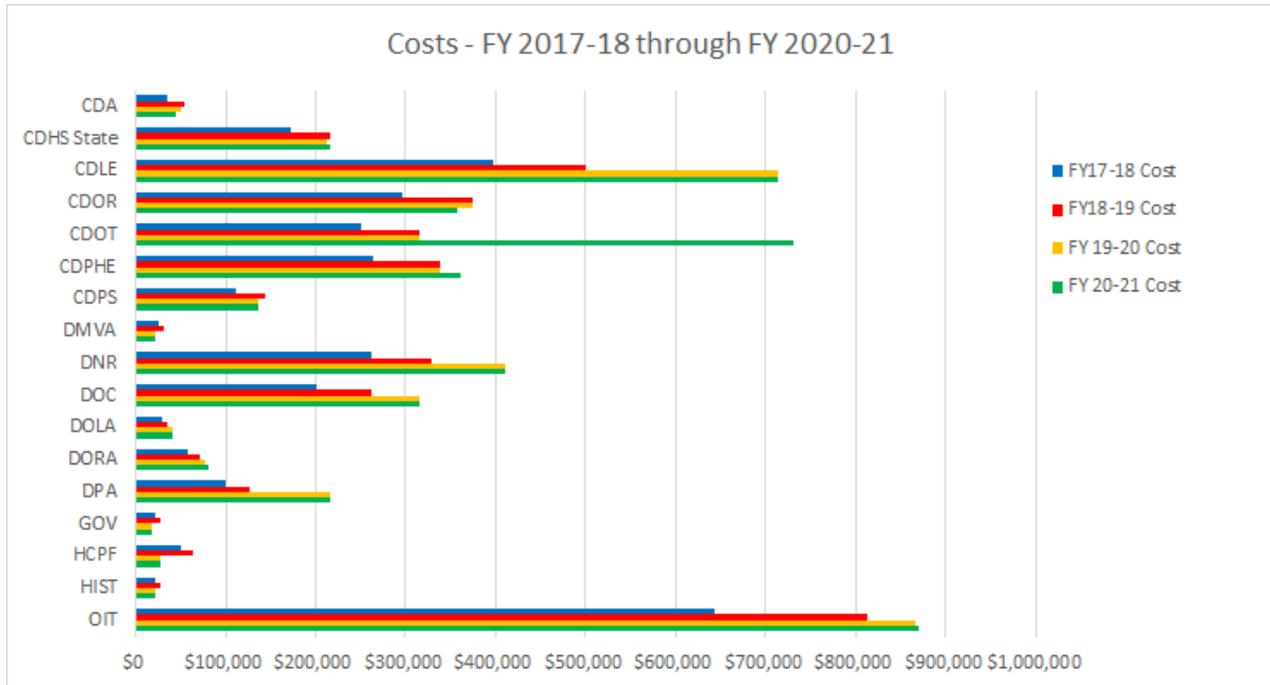
CDPHE	304	74	75	75	80
CDPS	123	31	32	30	30
DMVA	24	7	7	5	5
DNR	328	73	73	91	91
DOC	254	56	58	70	70
DOLA	34	8	8	9	9
DORA	67	16	16	17	18
DPA	152	28	28	48	48
GOV	20	6	6	4	4
HCPF	40	14	14	6	6
HIST	22	6	6	5	5
OIT	745	180	180	192	193

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	43	10	\$35,760	12	\$54,144	11	\$49,632	10	\$45,120
CDHS State	191	48	\$171,648	48	\$216,576	47	\$212,064	48	\$216,576
CDLE	538	111	\$396,936	111	\$500,832	158	\$712,896	158	\$712,896
CDOR	328	83	\$296,808	83	\$374,496	83	\$374,496	79	\$356,448
CDOT	372	70	\$250,320	70	\$315,840	70	\$315,840	162	\$730,944
CDPHE	304	74	\$264,624	75	\$338,400	75	\$338,400	80	\$360,960
CDPS	123	31	\$110,856	32	\$144,384	30	\$135,360	30	\$135,360
DMVA	24	7	\$25,032	7	\$31,584	5	\$22,560	5	\$22,560
DNR	328	73	\$261,048	73	\$329,376	91	\$410,592	91	\$410,592
DOC	254	56	\$200,256	58	\$261,696	70	\$315,840	70	\$315,840
DOLA	34	8	\$28,608	8	\$36,096	9	\$40,608	9	\$40,608
DORA	67	16	\$57,216	16	\$72,192	17	\$76,704	18	\$81,216
DPA	152	28	\$100,128	28	\$126,336	48	\$216,576	48	\$216,576
GOV	20	6	\$21,456	6	\$27,072	4	\$18,048	4	\$18,048

HCPF	40	14	\$50,064	14	\$63,168	6	\$27,072	6	\$27,072
HIST	22	6	\$21,456	6	\$27,072	5	\$22,560	5	\$22,560
OIT	745	180	\$643,680	180	\$812,160	192	\$866,304	193	\$870,816
Total	3585	821	\$2,935,896	827	\$3,731,424	921	\$4,155,552	1016	\$4,584,192

Below is a chart of the same data.



## Part D – Non-Productivity Software

### Section I – Non-Productivity Software Summary

The report lists asset inventory as of September 15, 2018 Governor’s Office of Technology (OIT).

#### Inclusions:

- Count of non-productivity software installed as of September 15, 2018 by category
  - Count is by total number of installs of the software, not the total number of software packages 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 September 15, 2018
- 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, security approval or waiver, tracking, training, maintain/upgrade, cost of upgrading 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, and as OIT security policies are working to enforce current -2 versions of software as the only installed and supported versions, OIT will see continued improvements in costs for non-productivity software.

**Part D: NPS inventory summary:**

Category	2018
<b>Admin Tool Kits</b>	441,174
<b>Background Programs</b>	1,024,725
<b>Business Ops Software</b>	194,054
<b>Developer Software</b>	81,082
<b>Highly Technical Software</b>	29,062
<b>Non-Standard Software</b>	48,044
<b>System Software Utilities</b>	227,029
<i><b>Total installs</b></i>	<i>2,045,170</i>

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.
  - CDOR’s CSTARs costs are part of CDOR’s costs as the data from the vendor was not granular to the division.
  - DOC Inmate is excluded in refresh as the software used is virtual server and there is no cost for the client computer.
  - Treasury does not have a refresh cost as the software used in the agency is covered in the productivity software on Part A of this report, and the few items they use are under the 5 or less installs.
  - A 1% increase is calculated for each year to account for price increases.
- Due to the way software is purchased and upgraded, the ability to project the refresh cycle is not something we can calculate. The factors for the NPS include: state agency need, federal requirements and mandates, security risk, security testing and approval. Typically

software is updated at the same time for the agency when all the testing and security approvals are done, and are not done based on a computer refresh, but on a project based upgrade.

- OIT continues to work to identify the NPS that is common in each or most of the agencies and work on leveraging better pricing based on the enterprise use, rather than the individual agency volume discount. This is help the smaller agencies get the larger agency pricing where pricing is based on volume by the agency.

**Part D: Projected refresh costs summary by FY:**

	<b>FY 2019-20</b>	<b>FY 2020-21</b>	<b>FY 2021-22</b>	<b>FY 2022-23</b>
<b>Total projected cost</b>	\$7,632,019	\$7,708,339	\$7,785,422	\$7,863,276

Appendix C – Projected Refresh Cost Summary FY 2020 –FY 2023

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
<b>Annual Total</b>	<b>\$ 7,632,019</b>	<b>\$ 7,708,339</b>	<b>\$ 7,785,422</b>	<b>\$ 7,863,276</b>

Appendix D – Non-Productivity Software Summary Report

State of Colorado SB 14-169 Non-Productivity Software Annual Report INVENTORY SUMMARY BY AGENCY as of September 15, 2018								
Agency	Software Category							Total installs
	Admin Tool Kits	Background Program	Business Ops Software	Developer Software	Highly Technical Software	Non-Standard Software	System Software Utilities	
CDA	2,659	3,378	1,757	458	73	550	1,644	10,519
CDHS	96,211	250,138	35,318	13,165	1,825	10,552	50,227	457,436
CDLE	32,827	69,326	9,580	7,382	504	2,246	11,617	133,482
CDOR	44,104	99,322	9,636	14,536	465	2,909	14,954	185,926
C STARS	21,668	31,564	7,874	1,786	322	1,617	8,323	73,154
CDOT	47,968	158,731	32,459	5,022	13,742	3,113	18,146	279,181
CDPHE	32,303	78,476	11,232	8,816	1,187	2,562	12,047	146,623
CDPS	39,257	85,124	16,338	6,061	3,554	5,789	34,094	190,217
CEO	459	1,339	133	13	15	89	134	2,182
DMVA	795	1,485	413	10	85	104	698	3,590
DNR	29,670	74,645	11,887	6,767	3,981	5,591	18,671	151,212
DOC	41,434	51,021	37,339	10,192	1,986	3,531	32,834	178,337
INMATE	0	0	160	0	0	0	0	160
DOLA	2,780	13,189	1,089	255	98	434	2,470	20,315
DORA	13,541	27,817	4,354	1,867	85	5,134	5,339	58,137
DPA	8,452	22,732	3,402	730	333	1,243	2,537	39,429
GOV	1,341	3,475	443	68	27	201	442	5,997
HCPF	12,071	24,020	5,607	1,167	169	781	7,592	51,407
HIST	3,165	6,554	1,387	173	152	427	1,061	12,919
OEDIT	815	1,966	290	51	12	99	289	3,522
OITHQ	9,057	19,565	3,057	2,494	446	956	3,579	39,154
TREAS	597	858	299	69	1	116	331	2,271
<b>Totals</b>	<b>441,174</b>	<b>1,024,725</b>	<b>194,054</b>	<b>81,082</b>	<b>29,062</b>	<b>48,044</b>	<b>227,029</b>	<b>2,045,170</b>
<b>% by category</b>	<b>21.6%</b>	<b>50.1%</b>	<b>9.5%</b>	<b>4.0%</b>	<b>1.4%</b>	<b>2.3%</b>	<b>11.1%</b>	



# **JBC Staff FY 2019-20 Briefing Office of the Governor**

**Presented by:  
Kevin Neimond, JBC Staff  
December 13, 2018**

## The Office's Divisions

(1) Office of the Governor (division)

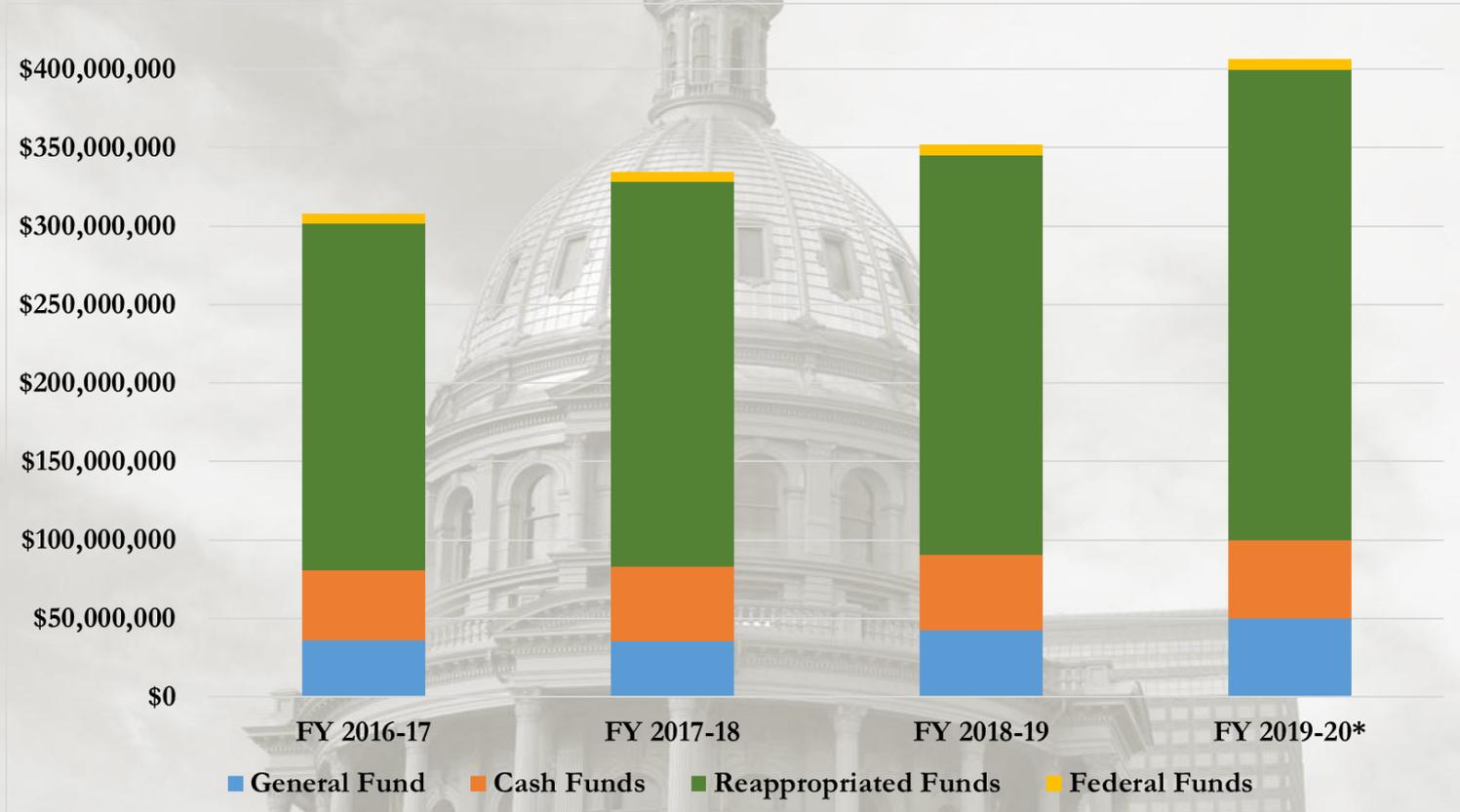
(2) Office of the Lieutenant Governor

(3) Office of State Planning and  
Budgeting

(4) Office of Economic Development  
and International Trade

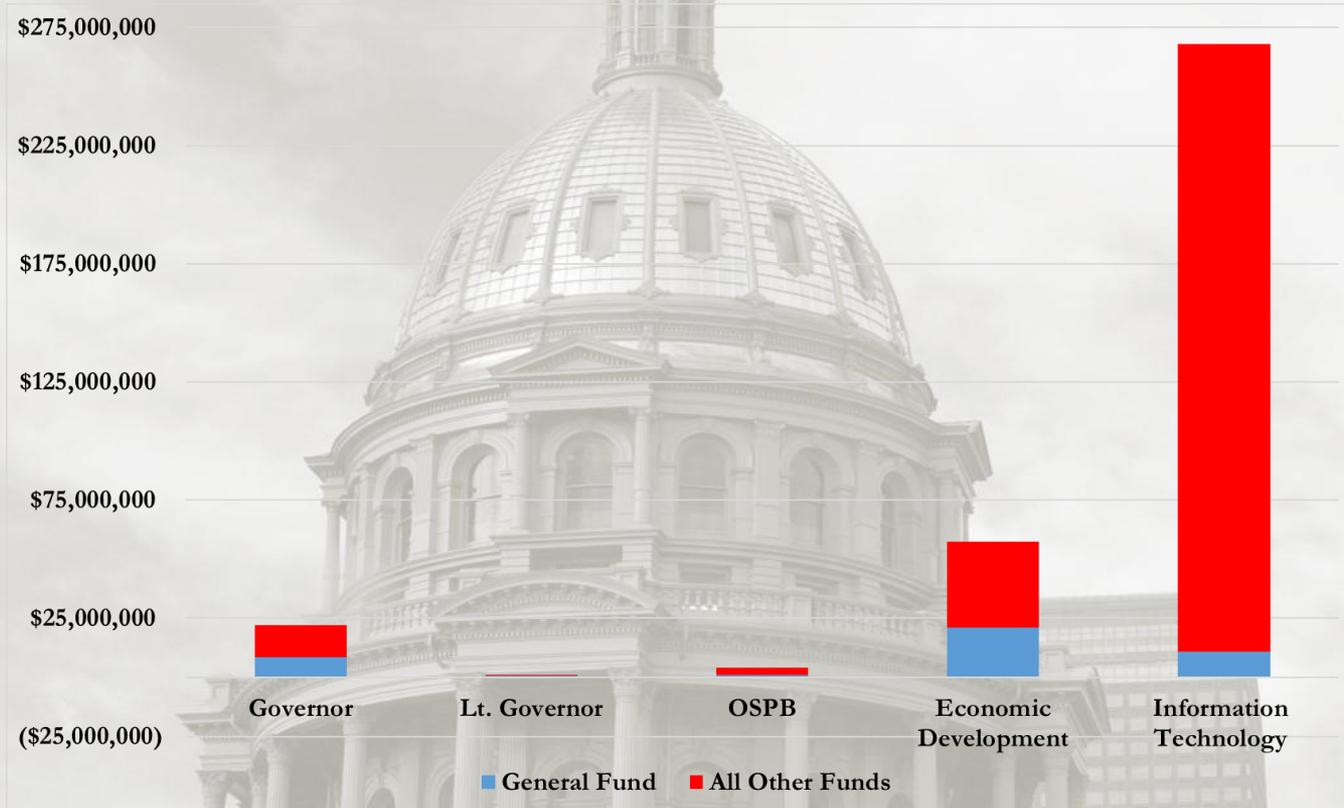
(5) Governor's Office of  
Information Technology

# Recent Appropriations



\*Represents requested appropriation.

# FY 2018-19 Appropriations by Division



# FY 2019-20 Summary of Requests

## Department Decision Items

\$31,865,506 total funds, \$7,233,027 General Fund  
38.5 FTE

## Decision Items Originating In Other Departments

\$10,086,367 total funds, \$68,367 General Fund  
16.2 FTE

## Prior Year Legislative Actions

\$2,251,334 total funds, (\$92,003) General Fund  
0.9 FTE

## Centrally Appropriated Line Items

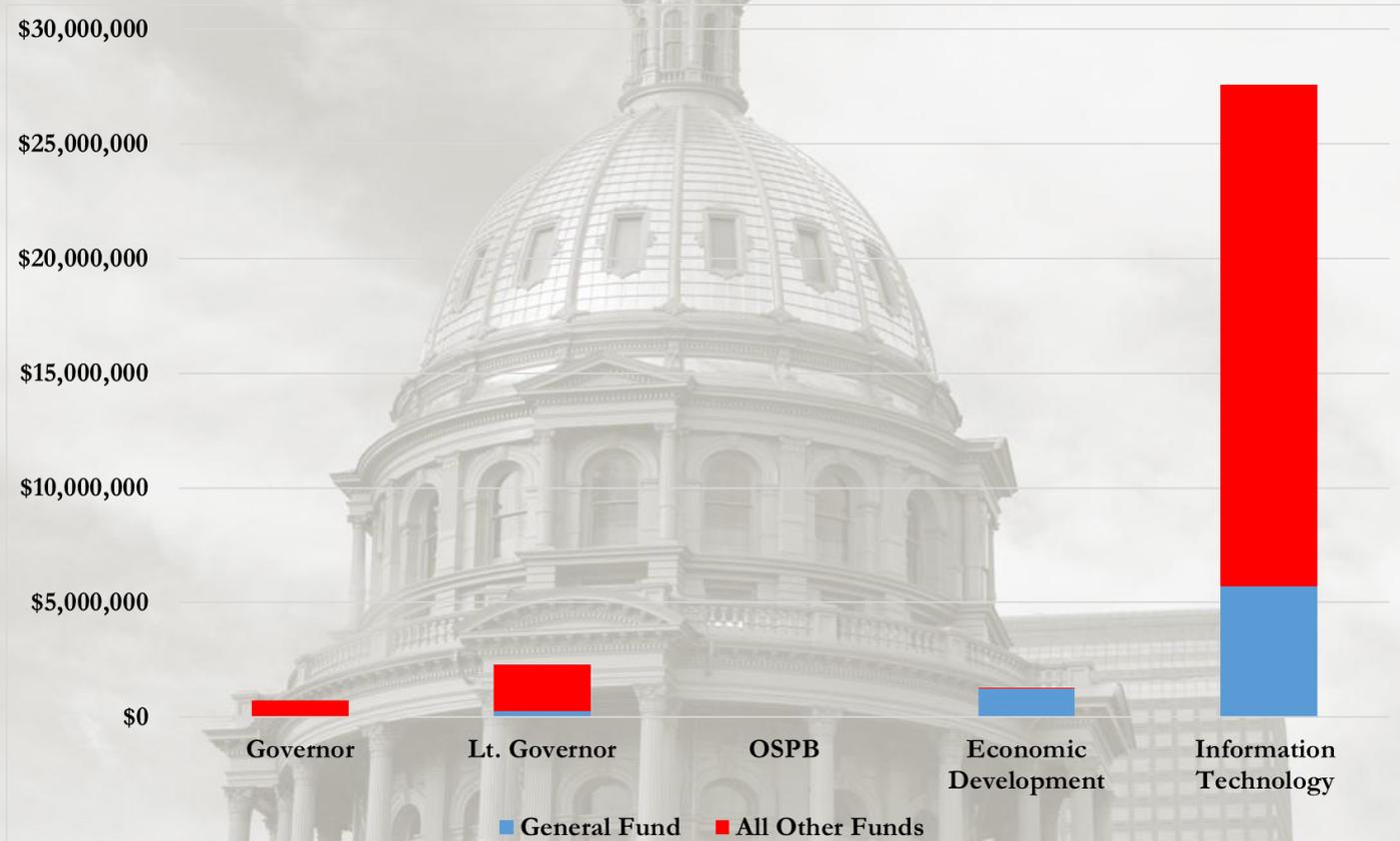
\$10,290,829 total funds, \$256,658 General Fund  
0.0 FTE



## Total Request

\$54,494,036 total funds, \$7,466,049 General Fund  
55.6 FTE

## FY 2019-20 Decision Items by Agency



## FY 2019-20 Briefing Issue



Improving the State's Delivery of Information Technology Services (p.21)

## FY 2019-20 Briefing Issue



### Capital Construction Information Technology Projects (p.30)



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