

Schedule 13 Funding Request for the 2014-15 Budget Cycle

Department: Governor's Office of Information Technology

Request Title: Digital Trunked Radio System (DTRS) Operations Increase

Priority Number: R-7

Dept. Approval by: *David B. King* 11/1/2013
Date

- Decision Item FY 2014-15
- Base Reduction Item FY 2014-15
- Supplemental FY 2013-14
- Budget Amendment FY 2014-15

OSPB Approval by: *Paul W. ...* 10/29/13
Date

Line Item Information		FY 2013-14		FY 2014-15		FY 2015-16
		1	2	3	4	5
		Appropriation FY 2013-14	Supplemental Request FY 2013-14	Base Request FY 2014-15	Funding Change Request FY 2014-15	Continuation Amount FY 2015-16
	Fund					
Total of All Line Items	Total	183,231	-	183,231	1,116,397	1,116,397
	FTE	-	-	-	-	-
	GF	-	-	-	-	-
	GFE	-	-	-	-	-
	CF	48,600	-	48,600	-	-
	RF	134,631	-	134,631	1,116,397	1,116,397
FF	-	-	-	-	-	
(5) Office of Information Technology, (D) Communication Services, Operating Expenses	Total	183,231	-	183,231	1,116,397	1,116,397
	FTE	-	-	-	-	-
	GF	-	-	-	-	-
	GFE	-	-	-	-	-
	CF	48,600	-	48,600	-	-
	RF	134,631	-	134,631	1,116,397	1,116,397
FF	-	-	-	-	-	

Letternote Text Revision Required? Yes: No: If yes, describe the Letternote Text Revision:

Cash or Federal Fund Name and COFRS Fund Number: COFRS Fund 613

Reappropriated Funds Source, by Department and Line Item Name: User Charges

Approval by OIT? Yes: No: Not Required:

Schedule 13s from Affected Departments: The request requires corresponding schedule 13s from departments

Other Information:

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COLORADO

Office of Information Technology

Priority: R-8
Digital Trunked Radio System (DTRS)
Operations Increase
FY 2014-15 Change Request

Cost and FTE

- The Office of Information Technology requests an ongoing increase to enhance the statewide public safety two-way radio communications. The request would increase funding for the Digital Trunked Radio System (DTRS) by \$1,116,397. The funds will be used for critically needed repairs, maintenance, scheduled replacement and software support for the DTRS.

Current Program

- The DTRS provides two-way radio communications for over 1,000 local, state, tribal and federal public safety agencies across Colorado. All Colorado citizens and visitors are served by the DTRS each time a 9-1-1 call is placed and police, fire and EMS services are requested. There are currently over 70,000 first responders across the State carrying radios utilizing the DTRS for emergency and non-emergency operations and communication interoperability 24-hours a day, 365 days a year.
- OIT administers the DTRS; regional engineers and technicians provide repair service, maintenance and monitoring of the DTRS, including 221 transmitter sites and microwave connectivity. The base level funding for this program is: Personal Services - \$3,727,491; Operating Expenses - \$183,231, Training - \$22,000; Utilities - \$183,768; Local Systems Development - \$121,000; and Indirect Cost Assessment - \$67,827.

Problem or Opportunity

- Current operational funding fails to meet minimum requirements for sustaining the daily operations of critical public safety communications network. The DTRS has grown exponentially over the past decade due to population increases and demand for expanded and improved public safety radio coverage. While the DTRS has continued to grow, the funding has remained the same level for over a decade. This request in funding will address the current budgetary shortfall for minimum operations and will allow OIT to initiate replacement of some of the obsolete electronic components of the system.

Consequences of Problem

- OIT is statutorily required to provide a public safety radio system to State public safety agencies - State Patrol, Corrections, Natural Resources, Transportation, Judicial, and others. OIT will be unable to meet this mandate, resulting in potential critical mission service outages that could, inevitably, result in catastrophic communication failures of the communications.
- The current funding shortfall has resulted in some local agencies losing of confidence in the State's ability to maintain the DTRS. Some local agencies are splintering off from the DTRS, which is creating a dangerous loss of public safety first responder ability to achieve statewide communications interoperability (the ability of police, fire and EMS first responders to communicate with each other on demand, and without dispatch intervention). As a result, there will be silos of local effort to create and sustain local radio systems not integrated with the DTRS.

Proposed Solution

- Develop project plan to address phased replacement of critical electronic components and renew expired software licenses for monitoring, asset and time management; re-instate Motorola Technical Support and Security Update Service agreements for Zone Master Sites.

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COLORADO

Office of Information Technology

FY 2014-15 Funding Request | November 1, 2013

John W. Hickenlooper
Governor

Kristin D. Russell
Secretary of Technology and
Chief Information Officer

Department Priority: R-7

Request Detail: Digital Trunked Radio System (DTRS) Operations Increase

Summary of Incremental Funding Change for FY 2014-15	Total Funds	Re-Appropriated Funds
OIT Communication Services Operating Expense	\$1,116,397	\$1,116,397

Problem or Opportunity:

This project is important to the safety of the citizens and visitors in Colorado, and the community of public safety first responders they serve. The Digital Trunked Radio System (DTRS) provides reliable two-way radio communications to the first responder communities across the State. Without the DTRS, the first responders cannot communicate with their dispatch centers or with each other on emergency and non-emergency calls for service.

DTRS Background

In the early 1990's, the State of Colorado envisioned a continuation project to replace the multiple disparate wireless communications systems operated by state and local governmental agencies. A seven-phase project was planned and constructed through partnerships with municipal, county, tribal, state and federal government agencies to make a communications system that would be available to all public safety, public service and other government agencies as either their primary radio system or for interoperability only. The resulting system was named the Colorado Statewide Digital Trunked Radio System - or DTRS.

Through the development of these partnerships the DTRS has grown exponentially over the past decade. Federal and state grant programs, including the U.S. Department of Homeland Security, Urban Area Security Initiative, Public Safety Interoperable Communications, and the Colorado Wireless Interoperability Network grants have largely supported the growth of the DTRS, in conjunction with state and local matching funds. Although, grant funds assisted in the growth of the network over the past decade, funds for maintenance, technical support, equipment replacements and software upgrades have not increased correspondingly. Grant funds are drying up and can no longer be relied upon for system growth or sustainment.

DTRS Operational Detail

The DTRS infrastructure currently consists of 218 active radio sites operating on four Zone Controllers and provides mobile radio coverage to approximately 95 percent of state highways. The system utilizes frequencies in both the 700 MHz and 800 MHz bands. There are over 1,000 state, local, county, federal and tribal agencies and over 70,000 subscriber radios using DTRS. In 2012, the system averaged more than 9,000 hours of talk time each month and handled over 99 million calls. The system has additional radio sites planned for implementation into FY 2013-14 to provide additional coverage in areas still needing

coverage. The majority of these new radio sites will be located in the western part of the State, where the final phases of the initial build-out were not completed. These radio sites have been funded primarily through local government budgets and the Department of Homeland Security yearly grant processes. The system is currently four software versions behind. This may be equated to any other computer network trying to function on a Windows 98 operating system, and the system cannot support the growth and advancement in technology.

Approximately one-third of DTRS users are state agencies. In FY 2013-14, OIT will bill state agencies \$5,459,255 for their respective uses of the system. The funding for this request will support state-owned components of the public safety radio system only. OIT is statutorily prohibited from charging local users for access or use of the system (Section 24.37.5-505, C.R.S.). Grants are not available due to the recent recession and only provide for system growth, not system maintenance or replacement. The DTRS was last provided with \$7.4 million in funding for a required system-wide software and hardware upgrade prior to the Democratic National Convention in Denver in 2008.

The State of Colorado, through the Communication Services team, maintains an integral partnership with all levels of government and users on the system, functioning as the primary entity providing system engineering and support.

Colorado’s population growth requires statewide communications infrastructure investment; current, technologically obsolete infrastructure cannot be relied upon any further to support first responders—the risk of a potential catastrophic communication failure during a widespread emergency is too high.

Proposed Solution:

The requested operational funding will be immediately put toward the service, repair, maintenance, and in some instances replacement of obsolete first responder/public safety communication critical components of the DTRS, including the microwave connectivity between transmitter sites and controllers.

The following table

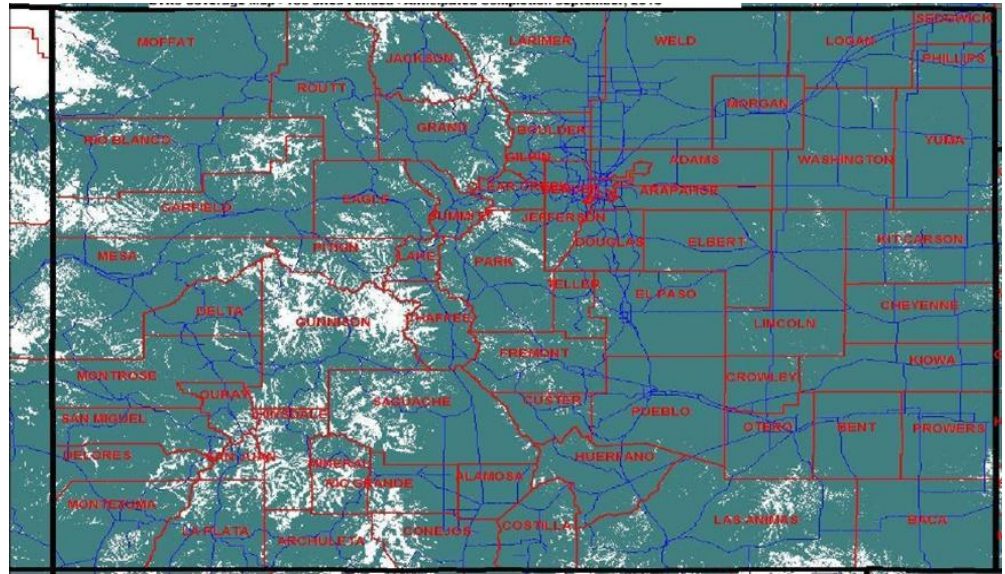
Software license renewal for Comm Services asset management and DTRS monitoring software (INFOR EAM, Genesis)	\$ 55,000.00
Technical support, security update service, UPS maintenance agreements for the State owned Zone Control Master Sites	\$ 378,521.00
Annual preventive maintenance and repair parts inventory for the service of over 207,672 State agency radios	\$ 85,000.00
Replacement of two microwave transceivers at three microwave tower sites annually – replacement determined by the most aged and most critical links	\$ 540,000.00
STRATA leased fiber from Grand Junction to Craig for DTRS network connectivity for the western slope	\$ 57,876.00
GRAND TOTAL	\$1,116,397.00

The attached ‘Assumptions and Calculations’ spreadsheet itemizes the components of the DTRS that will be included in this funding request.

This request is for on-going funding in support of the Public Safety DTRS.

Anticipated Outcomes:

The map to the right provides a high-level graphic of the DTRS coverage as of June 2013. Three new sites have been added to fill some of the coverage gaps in Grand and Rio Blanco Counties in July and August. The dark color signifies DTRS coverage. White areas of the map indicate coverage gaps or areas with no DTRS coverage.

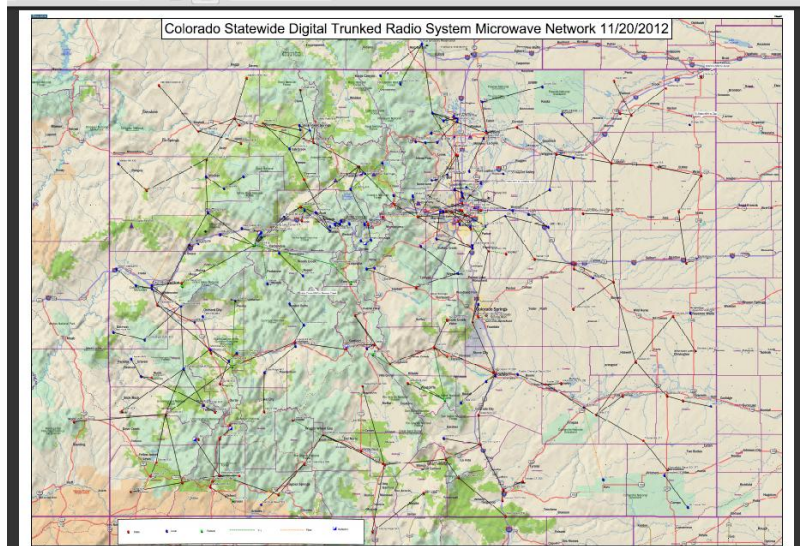


The map to the right (dated 6/15/2013) is a shot of support to Colorado fires in remote locations where the DTRS does support first responders, fire crews and rescue teams.

6/15/2013 7pm Colorado Fire Status

<p>Current Operations: 6 fires in Co. No DTRS sites currently in danger No OIT infrastructure impacted No Commercial service impacts noted</p> <p>State EOC will perform virtual operations today – continues 24/7 operations</p> <p>OIT continues to provide service to State EOC, DTRS monitoring and coordination, 20 hand held radios to the CO NG, and ES#2 (communications) support. No limitations at this time</p> <p>Future operations: NETOPS support to EOC, NETOPS support to DOC for prisoner move on Monday(t).</p>	
<p>Fire: State Boarder Contained: unknown Status: No structures or communities are threatened at this time.</p>	
<p>Fire: Rifle Co (BLM land) Ward Gulch Contained: 60% Status: 485 acres+, More than 300 firefighters and three helicopters are working the fire.</p>	
<p>Fire: Big Meadows on the west side of Rocky Mountain National Park Contained: 75% Status: fire burned 604 acres, No structures or communities are threatened at this time.</p>	
<p>Fire: Burro Creek Contained: unknown Status: No structures or communities are threatened at this time.</p>	<p>Fire: Black Forest Contained: 55% Status: 15,500 acres(reduced), 15,200 structures threatened, 473 homes destroyed, 17 homes partially destroyed, 2 deaths, 1 responder injured.</p>
<p>Fire: Royal Gorge Contained: 85% contained Status: 3218 acres, economic impact still unknown. DOC moved prisoners Tuesday to closed prison – DOC plans to move them back into original facility on Monday – Ron Wiseman and team established video, phone and wireless services at temp prison.</p>	

This map to the right (dated 11/20/2012) shows the current DTRS system comprised of 221 towers, 4 zone controllers supporting all 64 counties, local and tribes across the State. Of this total the State owns and maintains approximately 60% of the system. This request will provide funds for phased replacement of microwave transceivers, repair or radios, tech support for the DTRS network, replacement of fiber, and monitoring support. The funding will provide a positive impact on the DTRS systems, as software and hardware can be updated.



Assumptions and Calculations:

The table below lists the proposed expenses for the request.

NAME	FUND	AMT REQUESTED	PREVIOUS FUNDING SOURCE
EAM (Asset Mgmt System)	100/GRANT	\$ 45,000.00	Funded under a grant that had ended
GENESIS (monitoring system for DTR)	100/GRANT	\$ 10,000.00	Purchased under a grant that has ended
TECH SUPPORT (software upgrades for the network, Three Zone Controllers)	613/NETWORK	\$ 262,950.00	Always paid by Network, Communication services was never funded to pay this
SECURITY UPDATE SERVICE (SUS) (security updates for the network), Three Zone Controllers	613/NETWORK	\$ 83,471.00	Always paid by Network, Communication services was never funded to pay this
STRATA (leased fiber between Grand Junction and the Craig CSP dispatch center)	613/NETWORK	\$ 57,876.00	Always paid by Network, Communication services was never funded to pay this
Motorola - State agencies' user radio repair, parts	613/DTR	\$ 85,000.00	Expense increase, required to repair State agencies' user radios
UPS (Grand Junction/DTB/ Ft Collins) (maintenance agreement for the uninterrupted power supplies (UPS) systems on the DTRS Master Site-Zone 1 in Denver, Zone 2 in Grand Junction, Zone 3 in Ft. Collins.	613/NETWORK	\$ 32,100.00	New expense we will need to pay in FY 14
Immediately start replacing the obsolete microwave transceivers (2 per site @\$90,000 each), 3 sites per year.	N/A	\$ 540,000.00	Required expense to keep the system running
REQUESTED FUNDING		\$ 1,116,397.00	

Department Allocations

The costs associated with this consolidation are anticipated to be included in the DTRS rate structure. As such, the existing DTRS rate structure is allocated to departments based on their number of radios. The table below outlines the allocated increase in rates to each department based on respective radio counts.

Department	Radio Count	FY15 Allocation Rate	FY15 Allocation	FY16 Est Allocation Rate	FY16 Est Allocation
Agriculture	600	\$5.38	\$3,225	\$5.38	\$3,225
Corrections	75,948	\$5.38	\$408,279	\$5.38	\$408,279
Higher Education	1,776	\$5.38	\$9,547	\$5.38	\$9,547
Human Services	7,416	\$5.38	\$39,867	\$5.38	\$39,867
Judicial	684	\$5.38	\$3,677	\$5.38	\$3,677
Law	336	\$5.38	\$1,806	\$5.38	\$1,806
Military and Veterans Affairs	792	\$5.38	\$4,258	\$5.38	\$4,258
Natural Resources	44,940	\$5.38	\$241,587	\$5.38	\$241,587
Personnel and Administration	48	\$5.38	\$258	\$5.38	\$258
Public Health and Environment	876	\$5.38	\$4,709	\$5.38	\$4,709
Public Safety	31,488	\$5.38	\$169,272	\$5.38	\$169,272
Revenue	2,520	\$5.38	\$13,547	\$5.38	\$13,547
Transportation	40,248	\$5.38	\$216,364	\$5.38	\$216,364
Total	207,672		\$1,116,397		\$1,116,397