Maryland
DEPARTMENT OF INFORMATION TECHNOLOGY

Wes Moore | Governor
Aruna Miller | Lt. Governor
Katie Savage | Secretary

Department of Information Technology
Fiscal Year 2027 Capital Budget

TESTIMONY OF

Katie Savage, Secretary

House Appropriations Committee

Capital Budget Subcommittee

The Honorable Malcolm P. Ruff, Chair

February 16, 2025

Senate Budget and Taxation Committee

Capital Budget Subcommittee

The Honorable Craig J. Zucker, Chair

February 17, 2025

Good afternoon, Chairman and members of the committee.

My name is Katie Savage, and I am the Secretary of the Maryland Department of Information Technology. I am joined today by Eric Bathras, Chief Technology Officer in the Office of Infrastructure. Thank you for the opportunity to provide testimony. I would also like to thank our Department of Legislative Services Analyst, Yashodhara Rai, for her ongoing efforts and support.

The Department of Information Technology has two capital projects for your review: the Maryland First Responders Interoperable Radio System Team (MD FiRST) project and the networkMaryland Fiber Optimization project.

MD FiRST:
MD FiRST supports the Governor's goal of a safer Maryland by providing mission critical, reliable and secure communications for our Maryland first responders. It serves as a proven lifeline and the primary interoperability system for our state's first responder community during day-to-day operations and catastrophic emergencies.

MD FiRST is used by over 130,000 first responders across more than 130 state, county, and federal agencies, as well as neighboring territories. It has been vital during both high-profile national events and localized emergencies, such as the flooding in Western Maryland where the system facilitated the rescue of schoolchildren from rising waters.

As part of the Governor's Modernization Initiative (GMI), DoIT's Office of Infrastructure successfully negotiated a new ten (10) year maintenance contract with Motorola that was approved by the Board of Public Works (BPW) in November 2025, saving over $20M over the course of the next ten (10) years. The new contract includes four (4) system upgrades, cybersecurity hardening, emergency repairs, preventative maintenance and software and hardware upgrades for Motorola proprietary and situationally proprietary components of the MD FIRST public safety communications system.

The initial MD FIRST contract was competitively bid, approved by the BPW in November 2010, and awarded to Motorola Solutions. The construction of the radio system was completed in geographical phases and finished in April 2023. The scope of the initial contract was primarily the construction of the core radio system, and maintenance was added later to the contract after the phases of the project came out of warranty. In addition to the ten (10) year maintenance contract approved by the BPW in November 2025, DoIT also entered into a no-cost contract

modification to extend only those capital and operational projects underway, but not yet complete, through July 31, 2027. Projects that received funding in FY 2026 were not included within the no-cost contract modification. Contractual vehicles for FY 2026 and out-year project solicitations include CATS+ and the Statewide Radio Master Communications Contract.

Our fiscal year (FY) 2027 capital budget request is for $16,268,000. This funding will support the MD FiRST Coverage Improvement Program (CIP), focusing on system resiliency, redundancy, and enhanced statewide radio coverage.

For FY 2027, we are requesting funds to add three (3) new radio sites to the MD FiRST infrastructure. The new sites are planned for the following locations:

- Bowie (Prince George's County)
- New Germany State Park (Garrett County – 2nd of two (2) towers added to the park)
- New Market (Frederick County)

In the event the base of coverage is inadequate for operational user needs, the addition of radio sites is considered to fill coverage holes. The project team continues to evaluate coverage issues reported by operational users for prioritization within the program portfolio and out-year funding needs.

Funding is also requested in FY 2027 to continue to add Bi-Directional Amplifiers Statewide (also referred to as "BDAs). BDAs are a cost-effective solution to solve radio coverage gaps and/or enhance radio coverage in smaller, discrete areas such as schools, state parks, tunnels, and critical government buildings. The FY 2027 capital budget request supports funding two (2) new BDAs sites. The locations of the BDA's are driven by MD FiRST operational users who identify specific areas of concern within their respective communities. Since FY 2024, BDA installations completed to date include the Court of Appeals Building in Annapolis, Greenbrier State Park, an elementary school in Talbot County, Dorchester County Public Safety Building, and several fire houses on the eastern shore. Work is currently underway to add BDAs to the Maryland Cruise Terminal at the Port of Baltimore, as well as the new headquarters for the Maryland Department of Emergency Management in Hanover.

Funding to build upon efforts to add resiliency and redundancy throughout the radio network, while improving and enhancing system performance, continues in FY 2027. The FY 2027 capital budget request includes the addition of two (2) critical fiber paths to the MD FiRST backhaul network. The first, connecting from Rt 235 to the Maryland State Police Barracks in

Leonardtown, will complete the work begun in FY 2026 to add a large fiber ring in southern Maryland where current state fiber resources are limited. The second fiber path, while smaller in scope, will add fiber in Hanover, adding a MD FiRST point of presence within the new headquarters for the Maryland Department of Emergency Management.

In FY 2027, funding has been requested to continue the critical work to add geographically diverse control sites within the MD FIRST radio network. The MD FiRST system consists of 22 cells, each with a single primary control site that is responsible for controlling and managing information for that specific cell, while also connecting that cell to the rest of the network. The addition of a second control site within each cell provides redundancy in the event the primary controlling site is disabled, reducing the risk of a large-scale radio coverage outage directly impacting operational users and posing a risk to life. In FY 2027, funding is requested to add a geographically diverse control site in Cecil County, which receives limited overlapping coverage from contiguous radio cells due to its bordering with Delaware.

DoIT has revised its MD FIRST capital master plan to include funding to remedy known future system deficiencies and improve overall system resiliency. Beginning in FY 2027, funding has been included for base station radio modernization, and out-year funding has been included for radio site antenna and line replacements and a fourth system core.

Base station radio transceivers are located at the 150 MD FiRST radio (RF) sites throughout the state. Each RF site has typically between six (6) to sixteen (16) base station radios, and they are responsible for the communications between the system and operational users in the field. The base station radio currently deployed throughout MD FiRST is the Motorola model GTR 8000, introduced into the marketplace in 2006. There are approximately 1,000 GTR 8000 base stations deployed throughout the State. Motorola announced end-of-support for the GTR 8000 beginning in 2032 due to supply chain issues, which make future support problematic (production of critical parts ceased in 2016). In 2032, MD FiRST will have GTR 8000's that exceed 20 years old. The replacement of the GTR 8000s with Motorola's new D-series model will not only replace aged and unsupported equipment, but the new base station equipment has longer up time, a smaller footprint size within equipment shelters and improves cyber security capabilities. The new D-series equipment will also accept future system releases, ensuring MD FiRST remains a viable interoperable public safety communications system into the mid-century. Base station radio replacement is planned to be completed from FY 2027 through FY 2040 with a cost

estimate of approximately $76M.

Each RF tower site typically has two receive antennas and one transmit antenna mounted on the tower. These antennas are exposed to the elements 24x7 and have an average useful lifespan of 20 years. Additionally, each RF site has a tower top amplifier (1 per tower), coax cabling and associated hardware that connects to the antenna system. The total outyear cost to replace 435 antennas from FY 2031 through FY 2040 is approximately $14.8M.

Within the heart of the MD FiRST system is a series of primary and backup "cores" that process voice and data traffic for all operational users. As the MD FiRST user base continues to grow, the system runs the risk of reaching maximum use capacity. With the addition of a fourth system core, MD FiRST's overall system capacity would increase by 33%, while increasing the system's mission-critical resiliency and redundancy. The cost to add a system core is included in the FY 2031 capital funding request and is projected to cost $5M.

networkMaryland:
networkMaryland supports and aligns with the Governor's goal of leaving no one behind by prioritizing investments in under-resourced and un(der)served communities by advancing infrastructure to better connect all Marylanders. As the State's high-speed, secure broadband backbone, networkMaryland underpins government operations statewide, connecting more than 950 community anchor institutions, over 128 state entities and supporting more than 2,600 active circuits. The goal of the networkMaryland Fiber Optimization Program is to migrate approximately 236 community anchor institution connectivity to state-owned fiber in order to lower recurring monthly costs, improve digital equity, enhance reliability and better enable public safety and government services.

Commercial enterprise leased last-mile broadband services carry a significantly higher cost than State-owned fiber, often up to 22 times higher, creating budget pressures that may delay bandwidth and end user improvements for agencies. This program provides a more cost-effective alternative, supporting broadband service reliability while delivering an estimated $1.61M in annual cost benefit recovery and more than $2.17M in avoided costs. Based on projected cost recovery and avoidance, the State is on track to realize full payback of its investment within approximately 3 years.

We thank the Committee for its consideration and ask that our FY 2027 Capital Budget request be approved. My staff and I stand ready to answer your questions.