



Goal Improve the Quality and Efficiency of the Transportation System to Enhance the Customer Experience

Increase the use of technologies and operational improvements to enhance transportation services and communication to satisfy our customers

OBJECTIVES:

- Increase the efficiency of transportation services through partnerships, advanced technologies, and operational enhancements to improve service delivery methods
- Enhance customer satisfaction with transportation services across all modes of transportation
- Minimize travel delays and improve predictability of travel times on Maryland's transportation system
- Apply enhanced technologies to improve communications with the transportation system users and to relay real-time travel information



Millions of Maryland residents and visitors drive a vehicle, take public transit, walk, bike, and use Maryland's transportation system and services to get where they need to go. Meeting the needs of all customers is vital and MDOT strives to provide efficient, quality service. To enhance customer experience, MDOT MVA recently completed its information technology (IT) modernization project, known as Customer Connect, which expands information access and allows customers to conduct more online transactions than ever before. Customer Connect also provides customers and employees with a complete view of the customer's status and history with MDOT MVA by linking their driver and vehicle accounts. Since December 2021, more than half a million Marylanders have created a myMVA eServices account. With a myMVA account, customers can conveniently and efficiently manage their MDOT MVA business 24 hours a day, seven days a week. The completion of Customer Connect helped MDOT MVA achieve a near 10-minute reduction in wait time in the fourth quarter of FY 2022; the current average is 11 minutes, compared to 20 minutes in FY 2021. MDOT MVA also has partnered with other Maryland agencies to become a "one-stop-shop" for many services. The Department of Natural Resources, MDTA, and the Department of Veteran Affairs all have opened customer service centers within multiple MDOT MVA branches across the state and offer their products on MDOT MVA's eServices store and kiosks.

MDOT MTA's program Fast Forward: Customer Experience Enhancement Program, a \$43 million initiative improving transit reliability, travel times, and customer safety and access, is expected to be completed by the end of 2023. This program will design and construct additional dedicated bus lanes, create new and enhanced transit hubs, add more bus shelters, make Americans With Disabilities Act (ADA) and pedestrian

safety improvements at and near bus stops, improve real-time signs, and enhance wayfinding at Light Rail stations by the end of 2024. MDOT MTA also has improved accessibility to real-time information for transit riders. Customers now can view live train locations and arrival predictions on the Transit App and Google Maps for all transit modes. This sets the stage for the planned addition of arrival predictions on digital signage inside Metro stations in 2023. Additionally, real-time bus crowding information has been added to the Transit App for all LocalLink, CityLink, Light Rail, Express BusLink, and MARC services to give riders transparency and more choices in the trip-planning process.

MDTA continues to improve the customer experience for all-electronic (cashless) tolling. Since cashless tolling was made permanent statewide in August 2020, allowing drivers to pay tolls via E-ZPass®, Pay-By-Plate, or Video Tolling, MDTA has converted toll plazas on I-95 and at the Hatem, Key, Nice/Middleton, and Bay bridges to highway-speed, all-electronic tolling.

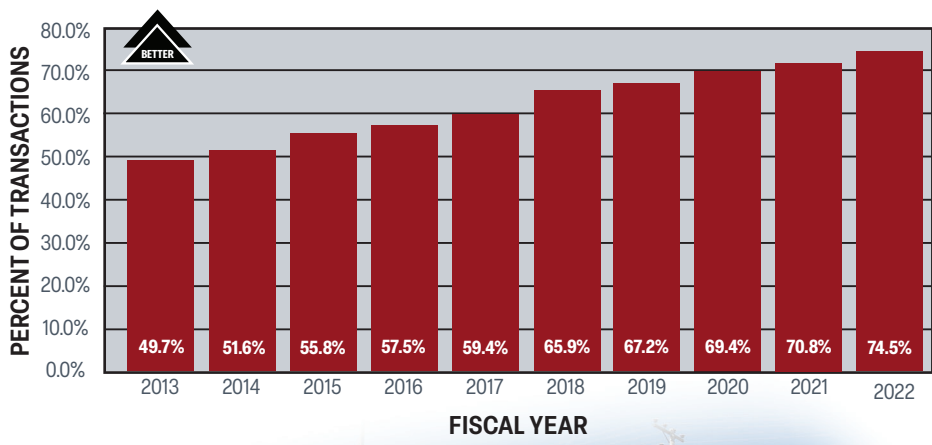
MDOT MAA strives to be a "good neighbor" within the community and has been participating in the Federal Aviation Administration's (FAA) voluntary CFR Part 150 Airport Noise Compatibility Program since the mid-1980s. Under this program, the sound insulation of eligible residences and schools intends to mitigate aircraft noise impacts to within federally accepted levels which in turn will improve the quality of life for citizens and help preserve the long-term operational sustainability of the airport. To date, more than 700 homeowners and four schools have participated in the BWI Marshall Airport noise program. MDOT MAA is working on the next phase of the program, which includes sound insulation for up to 136 single-family homes and 17 multifamily structures (comprised of 344 units).

OBJECTIVE: Increase the efficiency of transportation services through partnerships, advanced technologies, and operational enhancements to improve service delivery methods.

MDOT MVA ALTERNATIVE SERVICE DELIVERY (ASD) TRANSACTIONS AS PERCENT OF TOTAL TRANSACTIONS



Alternative services allow MDOT MVA to operate more efficiently by providing reliable and convenient service delivery to customers without requiring a transaction in-person. These services include web transactions, self-serve kiosks, mail-in options, and others. To be successful, alternative services must be adopted in conjunction with the development of new IT systems and customer behavior changes.



TARGET: Short-Term: 77.4% (FY 2023); Long-Term: 80.2% (FY 2024)

WHY DID PERFORMANCE CHANGE?

- MDOT MVA recently has completed its system modernization project, Customer Connect, as of December 2021; this fully integrated system has provided MDOT MVA the ability to capture more precise performance measures to better serve customers
- The completion of Customer Connect has allowed even more customers to carry out a transaction by a method other than coming in person to an MDOT MVA branch location

WHAT ARE FUTURE PERFORMANCE STRATEGIES?

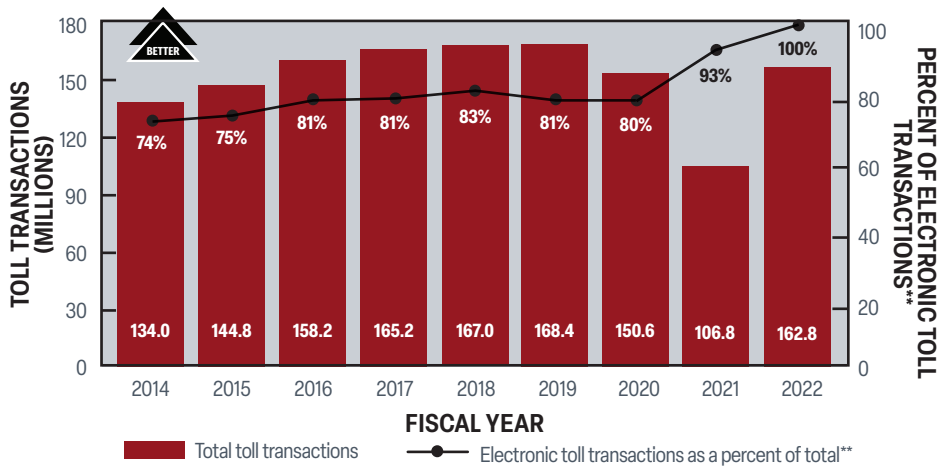
- MDOT MVA will promote the use of ASD systems, including myMVA—the online eServices delivery system, standalone kiosks, and expand the menu of online service options to complete transactions, submit documentation, and obtain account information on demand



PERCENT OF TOLL TRANSACTIONS COLLECTED ELECTRONICALLY*



Electronic toll collection (ETC) systems expedite the toll collection process, reduce delays at toll plazas, decrease congestion and emissions, and are available at all toll facilities across the state.



TARGET: Short-Term: 82%, Long-Term: 85%

*Toll collections are paid as cash until March 2020 or ETC. ETC includes transponder, I-tolls, Pay-by-Plate, and video tolls.
**Data has been revised from previous report.

WHY DID PERFORMANCE CHANGE?

- MDTA launched *DriveEzMD*, moving completely to all-electronic tolling; this included a new website, web chat, expanded customer call center, new toll payment choices, text notifications and more; as Maryland's new home for all things tolling, *DriveEzMD* encompasses *E-ZPass*®, *Pay-By-Plate* option, and video tolling
- Difficulties arose during the pandemic, causing delays in receiving all of the transactional data

WHAT ARE FUTURE PERFORMANCE STRATEGIES?

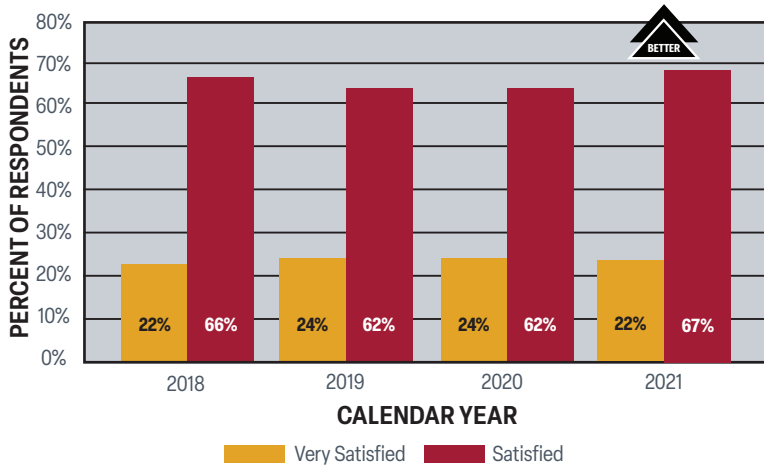
- Construction continues on the I-95 Express Toll LanesSM (ETL) Northbound Extension to relieve traffic congestion and improvements on overall travel along the I-95 corridor into Harford County and MD 24
- Currently, research is being conducted for new strategies to assist with collecting unpaid tolls and civil penalties from out-of-state drivers in the coming years

OBJECTIVE: Enhance customer satisfaction with transportation services across all modes of transportation

OVERALL SATISFACTION WITH MDOT



Customer satisfaction surveys provide MDOT with direct feedback from customers to help MDOT measure its success in providing exceptional customer service. With these surveys, MDOT and its Transportation Business Units (TBUs) can identify their major successes and weaknesses and develop new investment prioritizations to maintain and grow their customer bases.



**The survey data reported are through 2021; survey data reporting is delayed by a year due to the survey for the current year not being closed/completed at the time of publishing. 2022 survey data will be published in the 2024 Attainment Report.*

WHY DID PERFORMANCE CHANGE?

- MDOT MVA completed Customer Connect in 2021, which has allowed customers to conduct more transactions online than ever before
- MDOT MVA also has expanded online services through MyMVA, a service that allows customers to look up notices, letters, and receipts related to their vehicle, check their REAL ID status, and view any MDOT MVA correspondence related to their vehicle since July 2020 without stepping foot into a branch office
- MDOT SHA handled 128,069 events, including incident responses, assistance with disabled vehicles, and traffic management operations for special and weather-related events
- MDOT SHA also commenced work on the I-695 Transportation System Management and Operations (TSMO) project (project limits are from I-70 to MD 43) to reduce congestion along the west and north sides of the Baltimore Beltway

WHAT ARE FUTURE PERFORMANCE STRATEGIES?

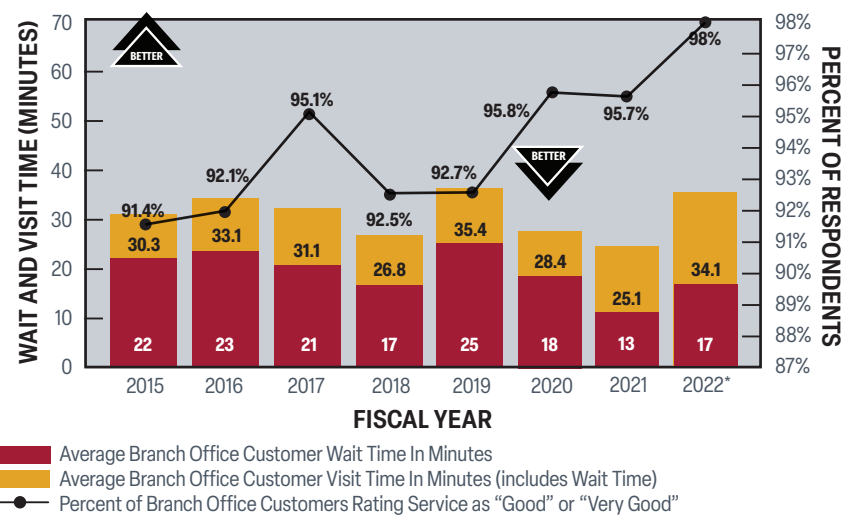
- MDOT MAA continues to focus on improving the customer travel experience and route offerings through strategic investment in airport facilities, expanding and modernizing amenities and services, and developing a dedicated and efficient workforce all to ensure that BWI Marshall Airport remains the accessible and hassle-free airport of choice for the region
- MDOT completed the draft of the Statewide Freight Plan and the State Rail Plan in 2022, which will help ensure that Maryland maintains a safe and reliable multimodal freight system
- MDOT SHA is focusing on three areas in future years: 1) asset management, which utilizes a system-preservation philosophy and also seeks to gain the best return on investment for future generations, 2) accessibility, to ensure all kinds of travelers have access to life's opportunities, and 3) mobility, which is about taking advantage of technology and data-driven systems to improve the efficiency of our existing footprint



MDOT MVA BRANCH OFFICE CUSTOMER WAIT AND VISIT TIME VERSUS CUSTOMER SATISFACTION RATING



MDOT MVA's average customer wait and visit time is a key indicator of the quality and efficiency of service delivery to customers and is related to customer satisfaction (i.e., as MDOT MVA branch customer wait and visit time decreases, customer satisfaction increases).



TARGET: Average branch office customer visit time (minutes) Short-Term: 31.5 (FY 2023); Long-Term: 28.2 (FY 2024)
TARGET: Average branch office customer wait time (minutes) Short-Term: 15.2 (FY 2023); Long-Term: 11 (FY 2024)
 *2022 data are preliminary and subject to change.

WHY DID PERFORMANCE CHANGE?

- MDOT MVA saw almost a 10-minute reduction in wait time in fourth quarter of FY 2022 at an average of 11 minutes, compared to FY 2021 at 20 minutes
- The recently completed modernization project, Customer Connect, included a new queuing and scheduling system that helps select the exact type of appointment the customers need and allows MDOT MVA staff to prepare for the customer before their arrival
- MDOT MVA moved to an appointment-only model, allowing for better control over customer flow and arrival patterns to accommodate the needs of the business while meeting customer demand

WHAT ARE FUTURE PERFORMANCE STRATEGIES?

- MDOT MVA will optimize appointment durations to match anticipated transaction times and create appointment schedules appropriate for each location's staffing levels, with flexibility to address temporary and seasonal demand and capacity issues
- MDOT MVA will continue to use real-time performance data reports to manage customer flows minute-by-minute to reduce wait time and identify opportunities for service improvements

OBJECTIVE: Minimize travel delays and improve predictability of travel times on Maryland's transportation system

PERCENT OF TRANSIT SERVICE PROVIDED ON TIME



On time performance (OTP) is an important indicator of service quality and efficiency and correlates highly with system usage and customer satisfaction.

MODE*	2013	2014	2015	2016	2017	2018	2019	2020	2021**	2022	LONG-TERM TARGET
Local Bus	82%	81%	81%	85%	77%	68%	69%	74%	74%	74%	85%
Light Rail	97%	96%	97%	98%	96%	94%	95%	96%	92%	96%	96%
Baltimore Metro	97%	96%	95%	96%	96%	94%	94%	71%	90%	96%	96%
MARC	93%	92%	92%	94%	91%	91%	87%	92%	94%	92%	96%
Mobility Paratransit & Taxi Access	89%	91%	88%	92%	93%	93%	86%	89%	76%	91%	95%

*Besides Local Bus, 2022 data is estimated and subject to change.
 **2021 data has been revised from previous report.

WHY DID PERFORMANCE CHANGE?

- OTP has been fairly steady across modes, except for an increase in 2022 for Mobility Paratransit and taxi access to 91% after a drop to 76% in 2021
- The recently completed North Avenue Rising Project, which includes 5.5 miles of dedicated bus lanes, bus stop improvements, intersection improvements, and bicycle and pedestrian safety projects, will benefit the OTP of buses in Baltimore traveling along the corridor

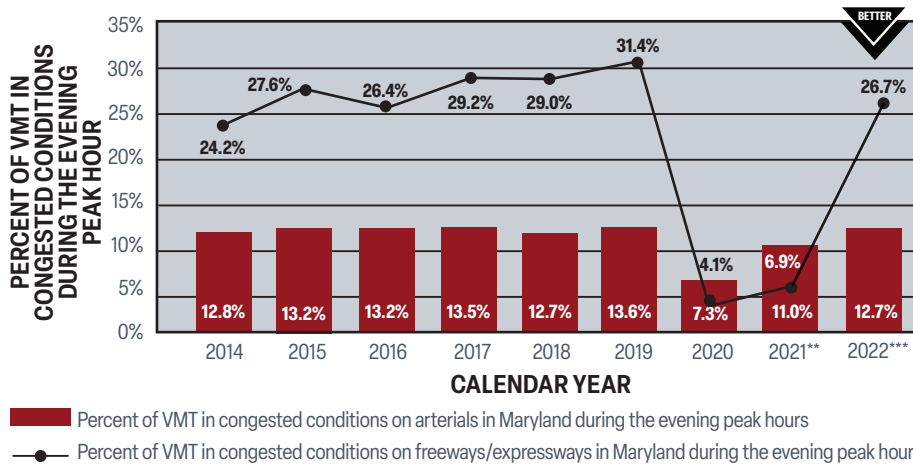
WHAT ARE FUTURE PERFORMANCE STRATEGIES?

- MDOT MTA is incorporating the use of increasingly sophisticated technologies to help us better understand customer demand patterns while also enabling us to build better schedules and routes
- MDOT MTA now has real-time information available on all transit modes, but will continue to improve real-time communications with our customers, which will allow for a better riding experience by enabling customers to plan their trips more accurately

PERCENT OF VEHICLE MILES TRAVELED (VMT) IN CONGESTED CONDITIONS ON FREEWAYS/ EXPRESSWAYS AND ARTERIALS* IN MARYLAND DURING EVENING PEAK HOUR (5-6 PM)



This measure tracks MDOT SHA and MDTA performance in reducing congestion on the state highway system. This is an indicator of congestion and the people/vehicles impacted by congestion.



TARGET: Percent of VMT in Congested Conditions on Arterials in Maryland During the Evening Peak Hour 13.4%
TARGET: Percent of VMT in Congested Conditions on Freeways/Expressways in Maryland During the Evening Peak Hour Short-Term: 26.7% (CY 2022) Long-Term: 31.2% (CY 2025)

*In 2017, MDOT SHA moved to ESRI Roads and Highways System; this caused a system-wide shift in the numbers, which are now reported with one decimal to more clearly indicate system performance.
 **2021 data have been revised from previous report.
 ***2022 data are preliminary and subject to change.

WHY DID PERFORMANCE CHANGE?

- Due to the uncertainty related to the COVID-19 pandemic and recovery, the estimation of the levels of traffic volumes has been difficult to determine, thereby affecting the 2021 actual data and requiring revisions to the future estimated data
- Evening peak hour traffic volumes have decreased by approximately 2.5% for the first half of 2022 from 2019 levels
- MDOT SHA's Coordinated Highway Action Response Team (CHART) handled 65,839 events during 2021 in relation to clearing incidents and aiding disabled vehicles
- As traffic volumes continue to rebound from peak pandemic levels, the total number of crashes and incidents continue to remain high

WHAT ARE FUTURE PERFORMANCE STRATEGIES?

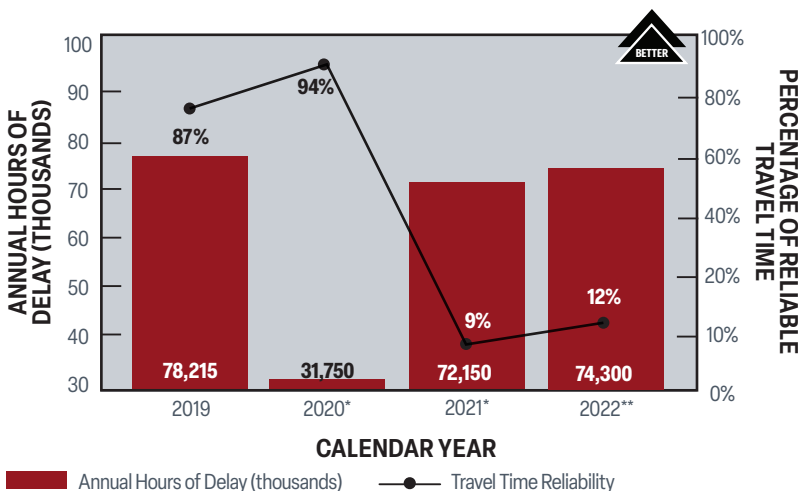
- MDOT SHA will carefully monitor truck and other vehicle-type congestion and reliability trends to invest strategically in freight corridors and highway networks as Maryland continues to recover from the COVID-19 pandemic

ANNUAL HOURS (THOUSANDS) OF DELAY AND TRAVEL TIME RELIABILITY ON THE MDOT HIGHWAY NETWORK



As the Baltimore and Washington regions continue to grow in population and jobs, more users will continue to add demand and congestion on much of the transportation system that already operates at or above capacity at peak hours. This measure tracks MDOT SHA and MDTA performance in reducing congestion on the state highway system. MDOT SHA and MDTA continue to prioritize congestion reduction and mobility growth, while many projects, programs, and policies prioritize delay reduction. This measure is an indicator of overall congestion and the number of people/vehicles affected by delay on the Maryland highway network.

As MDOT improves travel time reliability, customers are better able to predict total trip time. MDOT uses a planning time index (PTI) to measure reliability. Any roadway segment that has a PTI less than 1.5 is defined as reliable, and MDOT uses the PTI threshold to determine the percentage of travel time reliability. This allows MDOT to determine when system changes need to be made.



TARGET: 77,650 hours of delay in 2022; 13% travel time reliability 2022
 *2021 data have been revised from previous report.
 **2022 data are preliminary and subject to change.

WHY DID PERFORMANCE CHANGE?

- Traffic volumes decreased by approximately 10% for most of CY 2021 from CY 2019 levels due to the COVID-19 pandemic
- MDOT SHA's CHART handled approximately 65,839 incidents and disabled vehicle events during 2021 in relation to clearing incidents and aiding disabled vehicles

WHAT ARE FUTURE PERFORMANCE STRATEGIES?

- The development and streamlining of active traffic management and integrated corridor management capabilities
- Evaluation of the CHART patrol program to determine continuing improvements in reduction in roadway delays and user cost savings
- Advancement of major TSMO projects, such as the planned deployment of peak-hour shoulder use along I-695, ramp-metering along I-270, deck rehabilitation and joint modifications on I-95, and work on the Bay Bridge Automated Lane Closure System (ALCS)

OBJECTIVE: Apply enhanced technologies to improve communications with the transportation system users and to relay real-time travel information

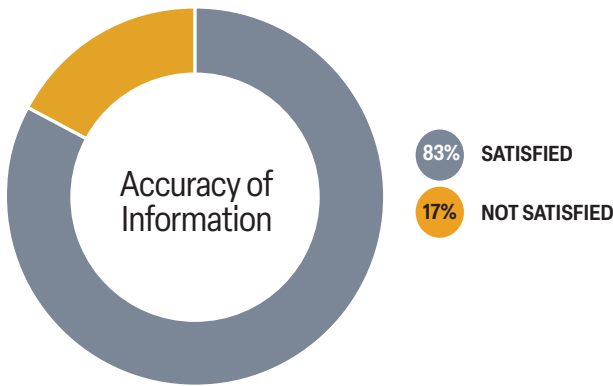
MDOT CUSTOMER SATISFACTION WITH THE ACCURACY OF REAL-TIME INFORMATION SYSTEMS PROVIDED



Real-time information systems, installed throughout the transportation network and available via web interfaces and mobile devices, provide the most accurate information for customer trip planning and time-management. By surveying customer satisfaction for each real-time information system, MDOT TBUs can observe which systems are utilized most successfully and which systems require improvements.

MDOT CUSTOMER SATISFACTION WITH ACCURACY OF INFORMATION

REAL-TIME SURVEY RESULTS (MDOT SHA/MDTA)*



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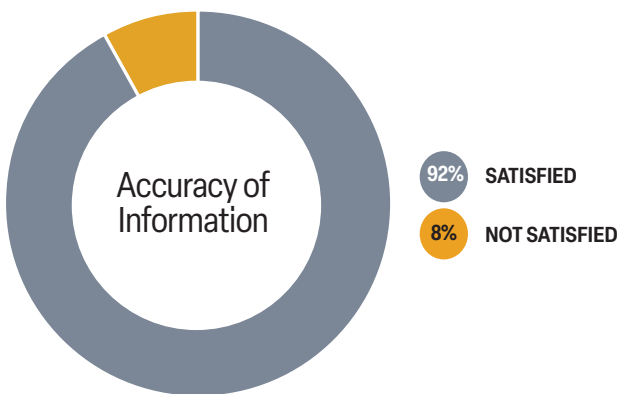
WHY DID PERFORMANCE CHANGE?

- MDOT MTA now allows riders to view live transit vehicle locations, arrival predictions, and crowding information on Transit App and Google Maps
- MDOT leveraged “Beyond the Bus Stop” federal grant funds to provide real-time digital signage pilot at three major transit hubs
- In August 2021, MDOT MAA opened a FirstCall Medical Center at the BWI Marshall Airport, which provides health care services for the traveling public and airport staff

WHAT ARE FUTURE PERFORMANCE STRATEGIES?

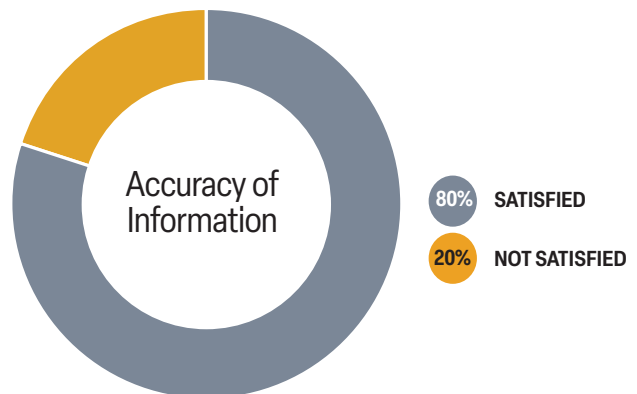
- MDOT SHA is facilitating real-time signal timing adjustment to support Eastern Shore Traffic Operations (ESTO) during summer months using Advanced Traffic Signal Performance Measures (ATSPM)
- To make way for enhanced TSMO and the deployment of Connected and Automated Transportation Systems (CATS), the Office of Transportation Mobility and Operations installs advanced traffic management system (ATMS) and advanced traffic information system (ATIS) technologies on interstate highways and arterials statewide as an ongoing effort; these include, but are not limited to, cameras, traffic detectors, weather sensors, Dynamic Messaging Signs (DMS), highway advisory radios (HAR), connected vehicle roadside units, websites, and telecommunication networks
- MDOT MTA’s program Fast Forward: Customer Experience Enhancement Program, a \$43 million initiative improving transit reliability, travel times, and customer safety and access, is expected to be completed by the end of 2023; this program will design and construct additional dedicated bus lanes, create new and enhanced transit hubs, add more bus shelters, make ADA and pedestrian safety improvements at and near bus stops, improve real-time signs, and enhance wayfinding at Light Rail stations by the end of 2024
- To meet the growing need for traveler WiFi and cellular connectivity, MDOT MAA embarked on a program to improve service throughout the BWI Marshall Airport terminal; as of FY 2022, MDOT MAA continues to expand and improve the services provided and Airport Service Quality (ASQ) passenger survey scores for BWI Marshall Airport’s WiFi/Cellular service are on the rise

REAL-TIME SURVEY RESULTS (MDOT MAA SHUTTLES AND PARKING)*



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REAL-TIME SURVEY RESULTS (MDOT MTA MARC, LIGHT RAIL, METRO SUBWAY, AND BUS)*



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