



Executive Committee

Information Item IV-A

January 11, 2024

**Transformation Update:
Digital Modernization**

Washington Metropolitan Area Transit Authority

Board Action/Information Summary

☐ Action ☒ Information

Document
Number:
205683

Resolution:
☐ Yes ☒ No

Presentation Name:

Strategic Transformation Update

Project Manager:

Kimmy Feldbauer

Project Department:

Strategic Transformation

Purpose/Key Highlights:

In this presentation, staff will provide the Board with an overview of the progress in implementing the Strategic Transformation Plan with a focus on Metro's Digital Modernization activities.

Interested Parties:

N/A

Background:

Adopted in February 2023, Metro's Strategic Transformation Plan (STP), ***Your Metro, The Way Forward***, guides the organization in its response to the changing world and Metro's operational challenges. The STP defines Metro's priorities and connects the mission, vision, and goals with actionable initiatives to drive progress, enhance transparency, and build trust with Metro's customers, staff, and stakeholders.

There are four overarching goals that drive Metro's process: Service Excellence, Talented Teams, Regional Opportunity and Partnership, and Sustainability. The STP connects each goal to supporting objectives aligned to detailed initiatives. Further, the STP defines specific Key Performance Indicators (KPIs), which are systematically tracked to monitor and support progress. In addition, the General Manager and Chief Executive Officer's Business Plan identifies Metro priorities, provides the foundation for department-specific work plans, and keeps the agency focused on the long-term goals outlined in the STP. The Business Plan outlines necessary actions to achieve priorities, provides measures to monitor success, and offers the Board and public with

a transparent and accountable framework. The proposed budget and multi-year operating and capital investment plans reflect these priorities

Discussion:

Digital Transformation Strategy and Implementation

A key component of the Strategic Transformation Plan is a stable digital infrastructure, culture, and team that will enable Metro to leverage the power of technology to improve operations; empower our teams and our customers to use data for daily decision making; and position Metro to become a transformation agent in transportation. In short, our information technology transformation strategy is focused on digital activation of the strategic transformation plan. Our digital activation efforts will be guided by the following three pillars:

- Ensuring a secure, reliable, sustainable foundation for the Authority
- Empowering our teams with digital tools and data
- Partnering with our stakeholders and customers to provide responsive support

Over the next twelve months the Office of the Chief Digital Officer will be focused on modernizing and reorganizing our hardware and software foundation. Also in this time, we will focus on creating greater transparency and repeatability, and leveraging technologies, such as artificial intelligence, to improve governance processes and integrate our data sources and operations.

While we stabilize this foundation, the Office of the Chief Digital Officer will move Metro toward the following five digital goals:

- Building a collaborative, responsive culture within our Digital Modernization team
- Providing transparent self-service to empower our teams and WMATA customers
- Operating single systems of record on an adaptive IT infrastructure; reducing duplication and costs
- Providing reports and data from data lake or data mesh that represents a single source of truth
- Operating a Zero Trust cybersecurity environment

Funding Impact:

No funding impacts at this time.

Previous Actions:

February 2023 - Board adoption of "Your Metro, the Way Forward" as Metro's Strategic Transformation Plan

Next Steps:

March 2024 - Annual Transformation Update

Recommendation:

Information Only

Transformation Update

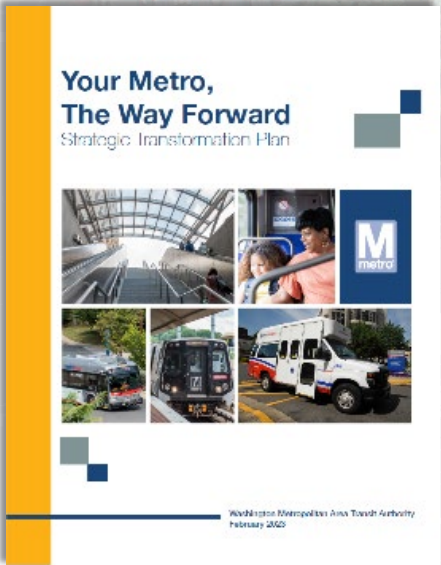
Digital Modernization Strategy

Executive Committee

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Strategic Transformation Plan: Guides long term strategy and day-to-day decision making of Metro over the next five + years



Guides



Day-to-day decisions

- Customer interactions
- Service schedules
- Communications



Long-term strategy

- Budget allocation
- Capital improvements
- Priority projects



Goals — Our priorities to achieve the vision

Service Excellence

Talented Teams

Regional Opportunity and Partnership

Sustainability

Purpose and Agenda

- To provide an update on Digital Modernization Strategy to advance Strategic Transformation Plan goals

Digital Modernization Strategy

January 11, 2024



Digital Modernization Strategy

Changing Digital Service Delivery

Service Excellence	Talented Teams	Regional Opportunity and Partnership	Sustainability
<ul style="list-style-type: none">❑ Drive safety and security❑ Improve on-time performance❑ Provide a seamless customer experience	<ul style="list-style-type: none">❑ Promote collaboration and process efficiency❑ Improve employee engagement❑ Increase productivity	<ul style="list-style-type: none">❑ Promote community engagement❑ Support multi-modal travel❑ Improve service frequency	<ul style="list-style-type: none">❑ Drive operational efficiencies❑ Improve asset management & maintenance❑ Create successful emissions management❑ Streamline and simplify technology landscape

Delivering the Strategic Transformation Plan
requires modern technology

Digital Modernization Strategy

What We've Heard From Our Teams and Customers

How we will address your needs

Engaging with Information Technology is cumbersome

No catalog of services or project pipeline visible to the business



SUPPORT AND PARTNER
for your technology needs

Data & digital tools not easy to use

Data not structured to support operations and decision making
Legacy architecture is not flexible



Enable our customers and teams with **DIGITAL TOOLS AND DATA**

Systems and infrastructure unable to meet current & future needs

Highly customized systems that are difficult to maintain/upgrade
Infrastructure is not sufficiently resilient



Ensure a secure, reliable, and sustainable **FOUNDATION**

Digital Modernization Strategy

Three Digital Phases



SUPPORT AND PARTNER
for your technology needs



Enable our customers and teams with
DIGITAL TOOLS AND DATA



Ensure secure, reliable, and sustainable
FOUNDATION

Organization:
Get the Basics Right

- *Functional organization*
- *New brand*
- *Investments aligned with strategy*

Transparency:
Communicate with our Stakeholders

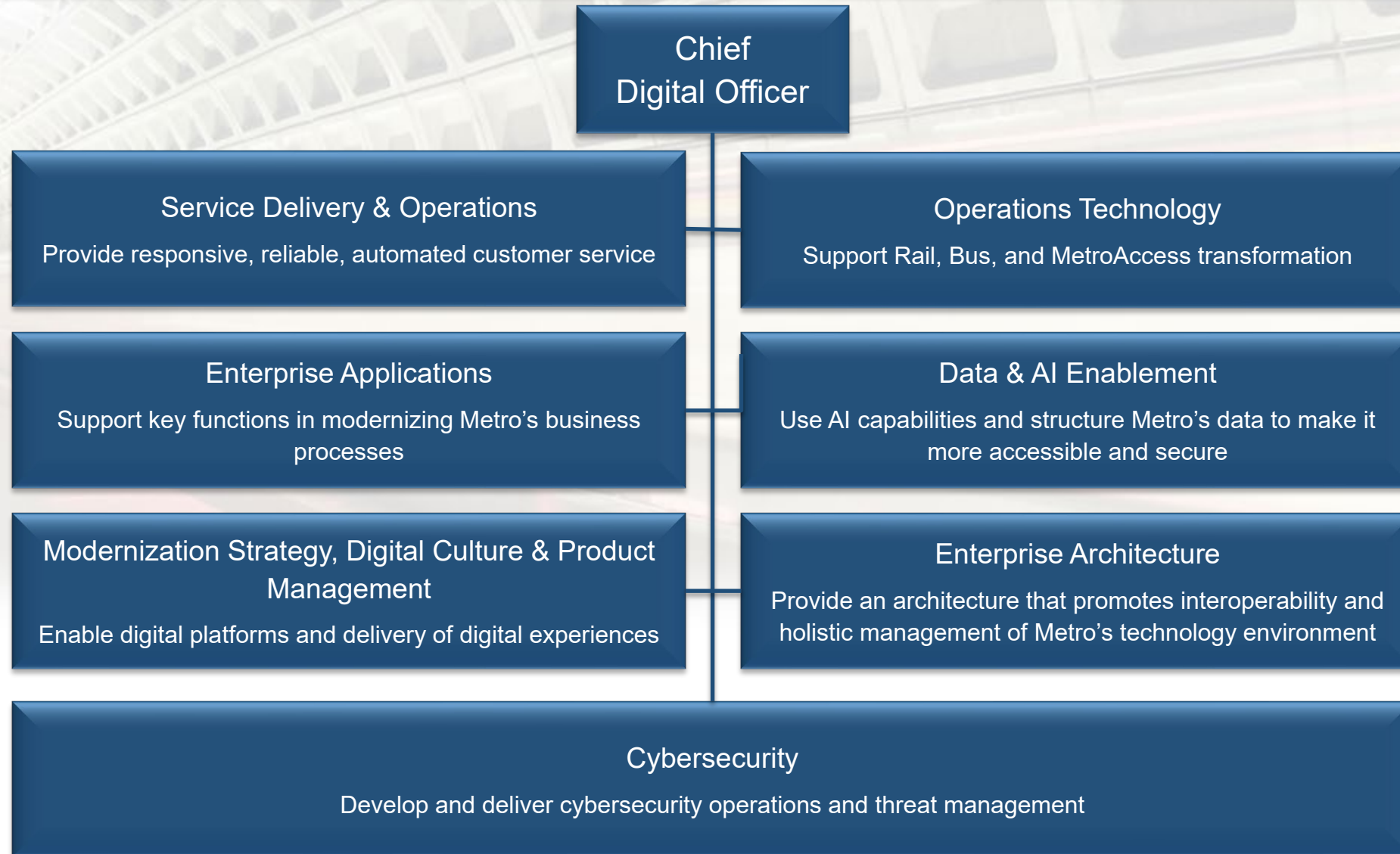
- *Transparent information*
- *Streamlined processes*
- *Technology Governance Board*

Activation:
Position Metro for Innovation

- *Innovation and modernization*
- *Innovation cell launch*
- *Cutting-edge technologies*

Digital Modernization Strategy

Functional Organization



Digital Modernization Strategy

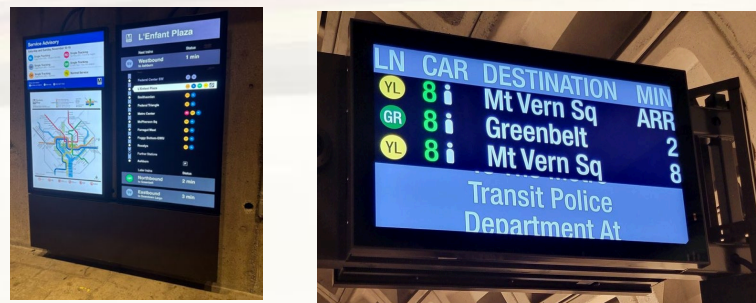
Modernization in Progress

Now



Aging Technology & Limited Information

In Progress

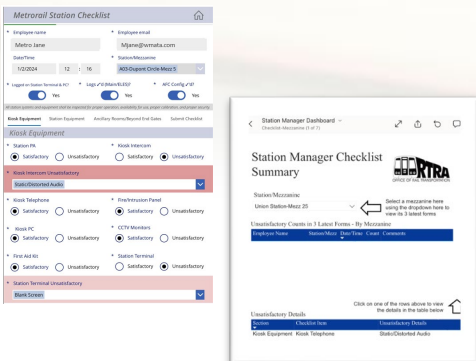


Modern Technology & Supplemental Information

EXPRESS #1- DUPONT

Time	Block #	Bus #	# Pass On	Time	Block #	Bus #	# Pass On
1517	1	4587	17	1552	2	460	22
1518	2	4608	21	1557	1	38	27
1519	1	7138	13	1604	2	62	45
1519	2	812	11	1610	2	491	35
1524	2	591	20	1614	2	708	45
1528	2	618	19	1613	2	49	43
1536	2	590	23	1623	1	414	17
1605	2	617	15	1627	2	467	16
1609	2	601	17	1629	1	4525	22
1611	2	709	31	1632	1	512	19
1624	2	625	22	1	7136		
1627	1	7136	17	2	405		
1631	2	618	17				
1641	2	706	17				
1645	1	8019	13				
1657	1	8108	13				
1641	2	511	32				
1652	2	618	21				
1658	1	736	32				
1659	2	617	21				
1659	2	618	23				
1656	2	617	17				
1658	2	617	16				
1659	2	618	18				
1659	2	618	16				
1659	2	618	17				
1659	2	618	17				

Manual & Labor Intensive



Interactive, Automated & Technology-Driven



Digital Modernization Strategy

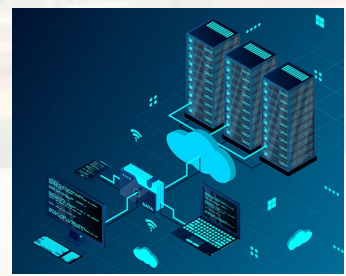
Modernization in Progress

Now



Duplicate Systems on Non-converged Infrastructure

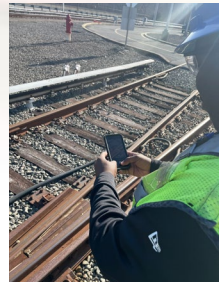
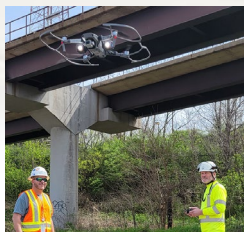
In Progress



Single Enterprise Resource Planning System on a Cloud-based Adaptive Information Technology Infrastructure



Duplicate Data Stored in Multiple Locations



Data from Multiple Sources Captured in a Data Lake for Artificial Intelligence Analysis

Digital Modernization Strategy

Digitally Activating the Strategic Transformation Plan

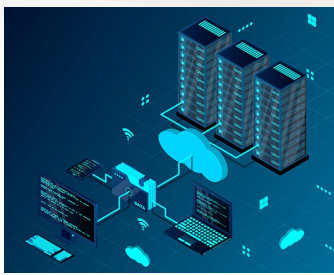
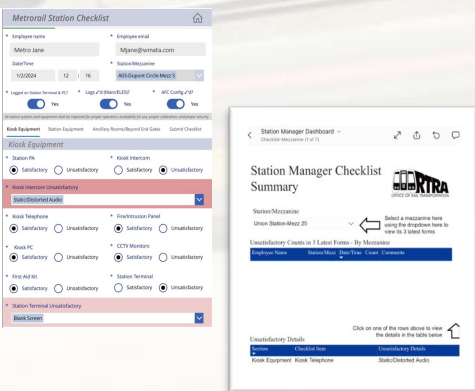


***MetroPulse and
Passenger Information
Display System***

**Using technology
to provide data to
our customers,
improve safety,
increase efficiency,
and reduce costs**



***Station Manager Tablet
Project***



***Enterprise Resource
Planning System***



Drone Pilot Program

