

# **MHBE Board Meeting**

**July 17, 2023**

**IT Procurement**

**AWS Infrastructure subscription**

**FY24 NTE increase**

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# Amazon Web Services (AWS) Infrastructure subscription FY24 NTE increase

MHBE currently utilizes Amazon Web Services for the following:

- **marylandhbe.com** website
- **Maryland Health Connection for Small Business** Web and Mobile Apps
- **Broker Connect**
- **LiveAgent Chat**
- Internal Wordpress Site (**BeeHive**)
- Enrollment Dashboard (Tableau)
- Robotic Process Automation (RPA)

The FY24 IT strategy includes three areas that will increase usage of AWS services and related costs.

1. Disaster Recovery and Business Continuity Build Out
2. Lower Tier Migration and POC (Proof of Concept) environment
3. Expand the MHBE enterprise footprint

# AWS Infrastructure Strategy

3

## 1. Disaster Recovery Build Out Benefits and Rationale

- Enhance and complete the Disaster Recovery (DR) capability of MHBE, by providing an alternate DR location that is integrated and operated by and for the benefit of MHBE in order to assure seamless business operations in the event of a primary system platform failure that causes the HBX to be inaccessible to both consumers and supporting IT Staff.

# AWS Infrastructure Strategy

4

## 2. Lower Tier Migration and Proof of Concept (PoC) Environment Benefits and Rationale

- It is crucial to prioritize the migration of the HBX Lower Tier environments (9 in total) and establish a PoC environment. This will allow MHBE to complete required system work and deliver innovative solutions with better speed and less overhead. Once completed, the migration of the Lower Tiers and the creation of a POC/Sandbox will have a positive effect on the following: improve code deployments, reduce environment downtime, improve and better centralized security, responsiveness to MHBE system needs and save cost by reducing server footprint and professional service costs.

# AWS Infrastructure Strategy

5

## 3. Expand the MHBE Enterprise Footprint Benefits and Rationale

- **Maryland Health Connection for Small Business Enhancement** - The Small business enhancement will be an end-to-end enrollment portal for Small Business employers and employees to shop for plans and enroll directly with carriers.
- **Shared Services** - As part of the MHBE enterprise the MHBE IT is increasing its Shared Services for Continuous Integration and Continuous Development that serve as a delivery model facilitating collaboration between an organization's software development and deployment teams. The following tools that will be utilized and integrated are: Bitbucket, Jenkins, Nexus, SonarQube, Veracode Scan, Splunk, Synopsis Seeker, and Burp Suite.

# AWS Infrastructure Strategy

6

## 3. Expand the MHBE enterprise footprint Benefits and Rationale, continued

- **Enterprise Assets** - MHBE will migrate existing enterprise and new assets into AWS, such as: Enterprise Active Directory, ADFS, Zscaler client connector, DNS, SailPoint Integration, Nagios, StateWide Government Intranet (SwGI), and CrowdStrike. By placing more services in the cloud MHBE can reduce its physical footprint of servers in a cloud model and improve the reliability of critical services that keep the Agency operational.
- **API (Application Programming Interface) Gateway** - MHBE will be expanding its API gateway to cover new application services and improve existing API security endpoints, further improving the overall security posture of MHBE.

# AWS Infrastructure Strategy

## 3. Expand the MHBE enterprise footprint Benefits and Rationale, continued

- **Artificial Intelligence (AI) and Robotic Process Automation (RPA) powered enhancements to Chatbot** - MHBE will increase the footprint and utilization of both RPA and AI/ML by adding robots and services in AWS and implement RPA automation for labor intensive System Operations functions such as website Up and Down, Certificate Management, WebServer Monitoring, Database Monitoring and System Health Checks. Doing so will improve the efficiency of the current staff and allow them to attend to other important functions. Also MHBE will be leveraging AI, like ChatGPT, to provide a natural conversation and enhance the existing chatbot to provide better instructions, improve clarity and accuracy when responding to the consumer.

# AWS Infrastructure Strategy

8

## 3. Expand the MHBE enterprise footprint Benefits and Rationale, continued

- **Data Analytics Capabilities** - MHBE will be modernizing our data management and business intelligence by building a Data Lakehouse. A Data Lakehouse will allow MHBE to leverage AI and Machine Learning to gain insights and valuable business intelligence. The project will enhance our responsiveness to citizens' needs, driving better outcomes, and fostering public trust in government operations through a data-driven approach.



# Procurement Summary

- **License Period:** (2 base years) is from November 1, 2022 – October 31, 2024, and (1 option year) from November 1, 2024 – October 31, 2025.
- **Procurement Method:** Request for Quote (RFQ) through GSA Schedule 70
- **The cost of license (NTE) for November 2022 to June FY 2023: \$285,000**
- **Projected cost of license (NTE) for FY 2024: \$2,000,000**
- **Annual Cost:** Varies based on utilization. The Board approval for a Not-to-Exceed (NTE) Amount will be requested for each Fiscal Year
- **Vendor:** A&T Systems, Inc.

# FY 2024 Projected Cost

Product	Function	Federal 75% (\$)	State 25% (\$)	Total Cost (\$)
Amazon Web Services' (AWS) Infrastructure subscription offering hosted on a FedRAMP Certified Infrastructure	AWS Services, which includes but is not limited to, Compute, Storage, Database, Robotics, Customer Enablement, Management & Governance, Analytics, Security, Identity, Compliance, Business Applications and End User Computing	<b>1,320,000</b>	<b>680,000</b>	<b>2,000,000</b>

# Request for Approval

MHBE requests the Board to approve for FY24 an NTE Amount of **\$2,000,000** with a Federal Participation amount of **\$1,320,000** and State participation amount of **\$680,000** to the vendor **A&T Systems, Inc.**