



Airport Profile:  
**Metropolitan Washington Airports Authority**  
*Building a Foundation to Drive Innovation*



REAGAN | DULLES  
NATIONAL | INTERNATIONAL

Goutam Kundu, Chief Information Officer  
September 15, 2019

# Metropolitan Washington Airports Authority (MWAA)

## Two-airport system serving the nation's capital:

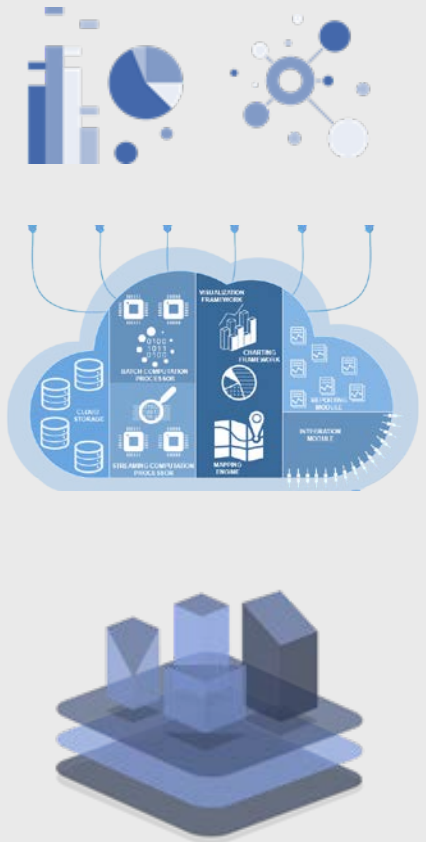
- Washington Dulles International Airport (IAD)
- Ronald Reagan Washington National Airport (DCA)
- Combined passenger count of 47.5M in 2018
- Also:
  - Operation of the Dulles Airport Access Highway and Dulles Toll Road
  - Construction of the Silver Line Metrorail project



# Overview

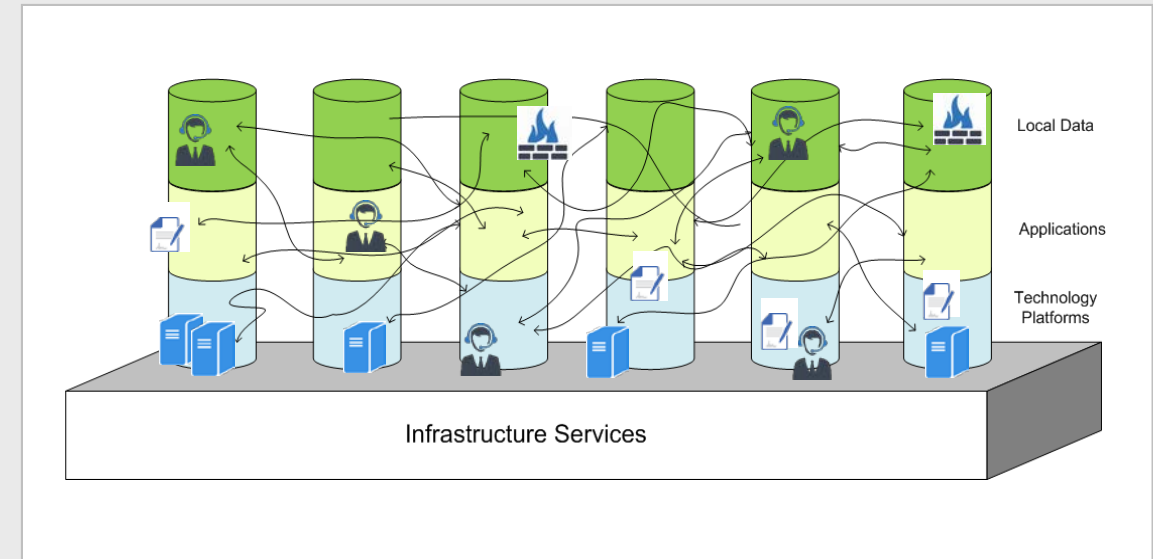
## MWAA's technology transformation since 2013:

- From an outsourced IT function fostering a siloed culture between the two airports...
- ...to a strategically-aligned IT team focused on delivering efficient, flexible, future-proofed solutions



# 2013: Where We Were

- Siloed, fragmented environment
- Costly to maintain and overhaul
- Duplicative systems performing same tasks
- Lack of agility due to tight integration
- Systems not talking to one another
- Lack of in-house thought leadership
- Lack of corporate perspective & analytics



# Technology Roadmap: Stabilize, Standardize, Innovate



## Stabilize

(short term needs)



## Standardize

(intermediate goals)



## Innovate

(long term vision)

- Deliver and sustain operational excellence by establishing a stable core system of operations.
- Modernize infrastructure by consolidating and upgrading to next-gen technologies.
- Grow capabilities and maturity level by establishing and implementing corporate IT priorities, standard processes and technology standards across MWAA.
- Transform the way MWAA conducts business through innovation, such as passenger-centric solutions, Cloud, mobile, BI, biometrics, AI capabilities.

# Stabilizing and Standardizing

## Infrastructure Build-out

- Network
- Data center
- Wi-fi

## Unified Communications

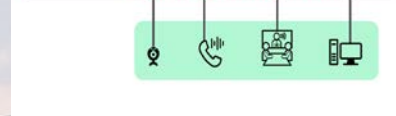
- Web, mobile, signage
- Public safety systems

## Consolidation

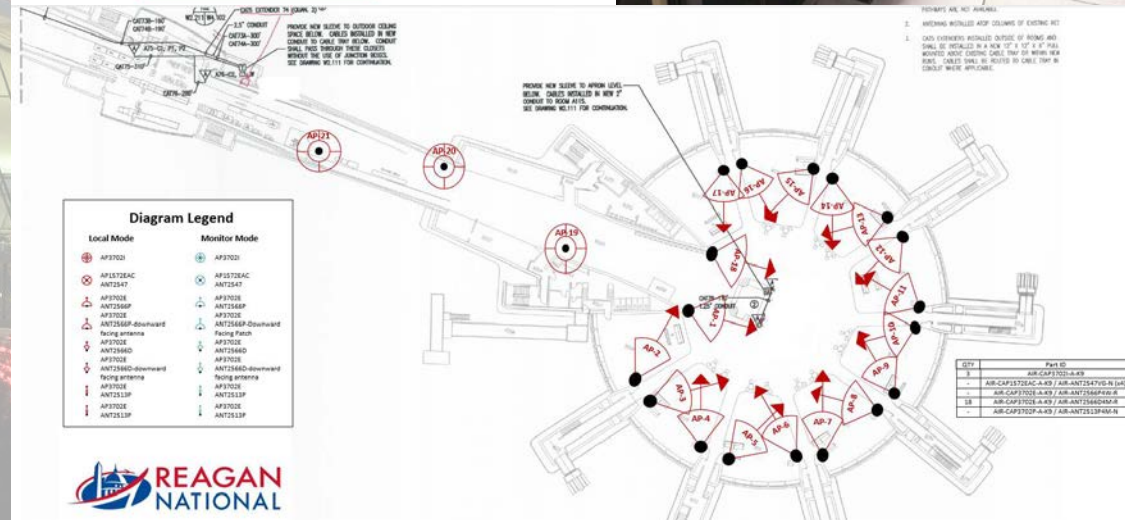
- Helpdesks
- Servers and databases
- Cloud / SaaS



### IAD Campus Core Network



### DCA Campus Core Network



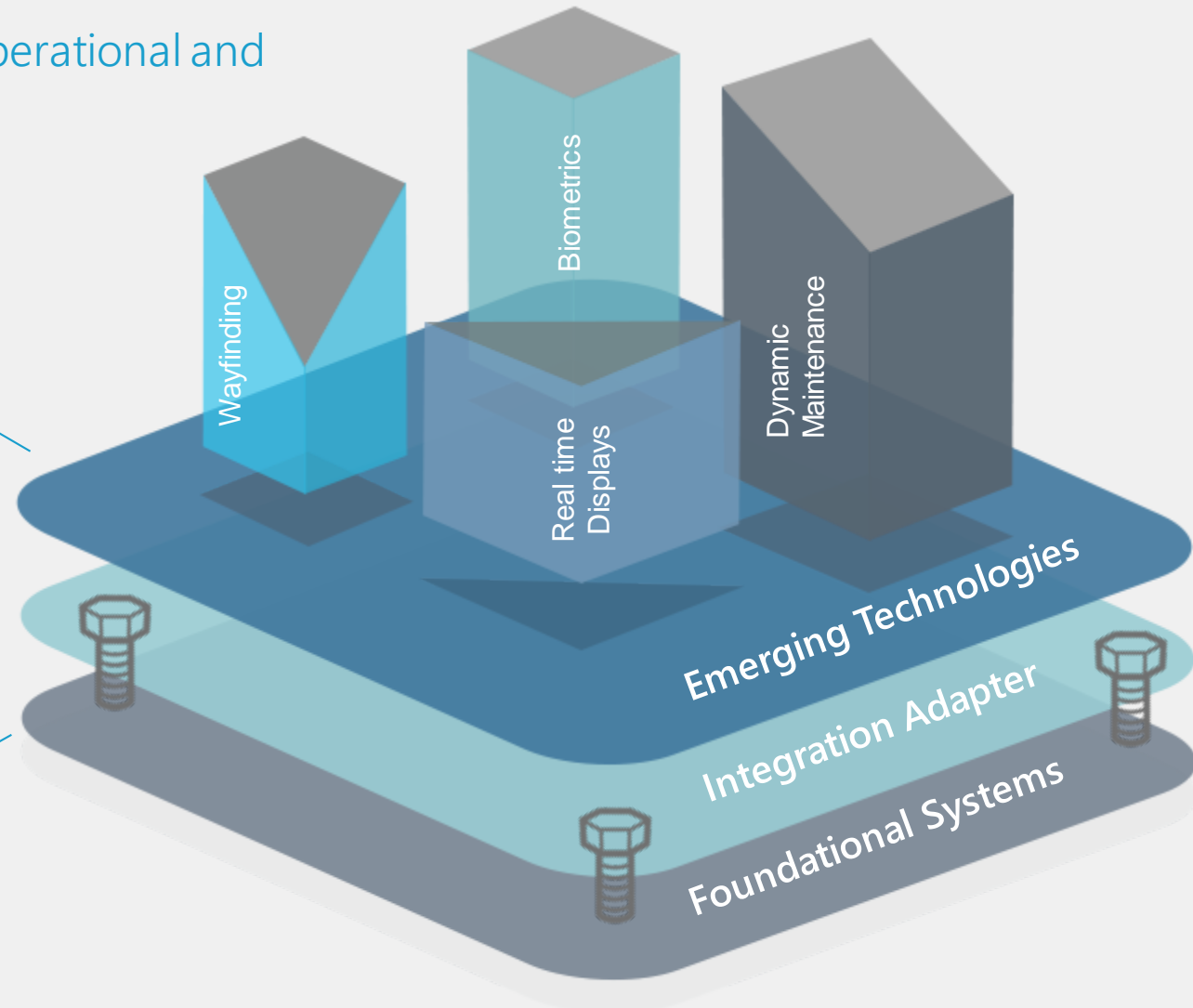
# Innovation Approach: Layered Architecture

Centralized technology framework for operational and innovation excellence

Emerging technologies that **transform**:  
unique, dynamic, ad-hoc, experimental

MWAA Labs' patented digital  
repository of connectors used to  
**integrate** software systems

Systems that **run** the airport / airline:  
stable backend, complex and slow  
changing.



# Innovating

- Innovation think tank, using our own airports as sandbox
- Leveraging the power of our community
- Solutions built for airports, by an airport



FIDS/ BIDS/ GIDS

Customer Service Kiosk



Ticket Counter Display System



Airport Directory



Maintenance Inspection App

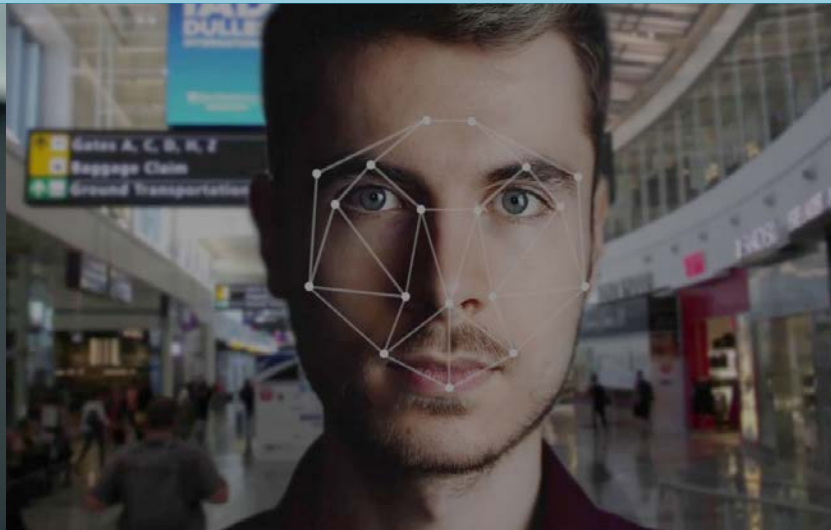


DC Airports App





# Case Study: veriScan Biometric Traveler Verification Solution



# Need for Airport Biometrics

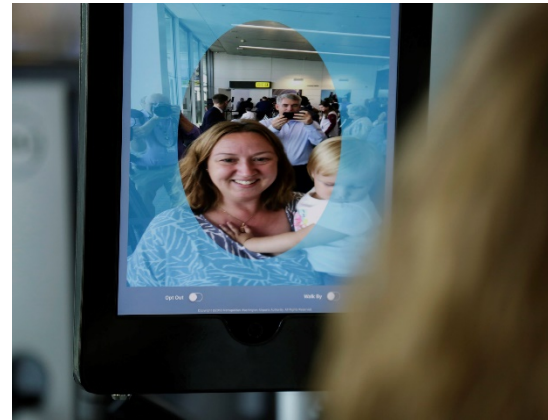
- In 2018, MWAA began exploring solutions to meet the Congressional biometrics mandate
- Commercially available solutions were costly, monolithic, over-engineered and/or unreliable
- Turned to in-house team to come up with something that would work for our Airports
- Developed fast, seamless, secure, and cost effective solution
- Well received by airlines and airports alike for its speed, reliability, ease of use and flexibility



# What is veriScan?

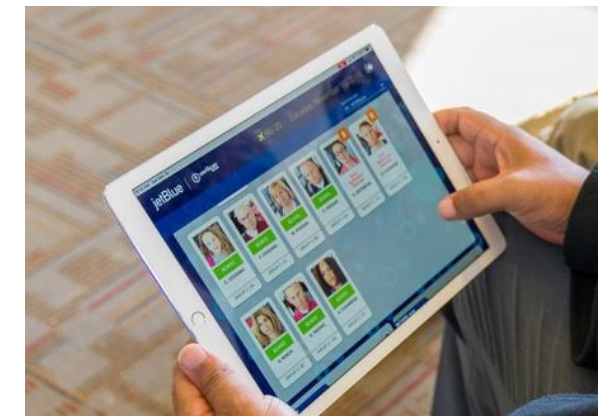
## veriScan

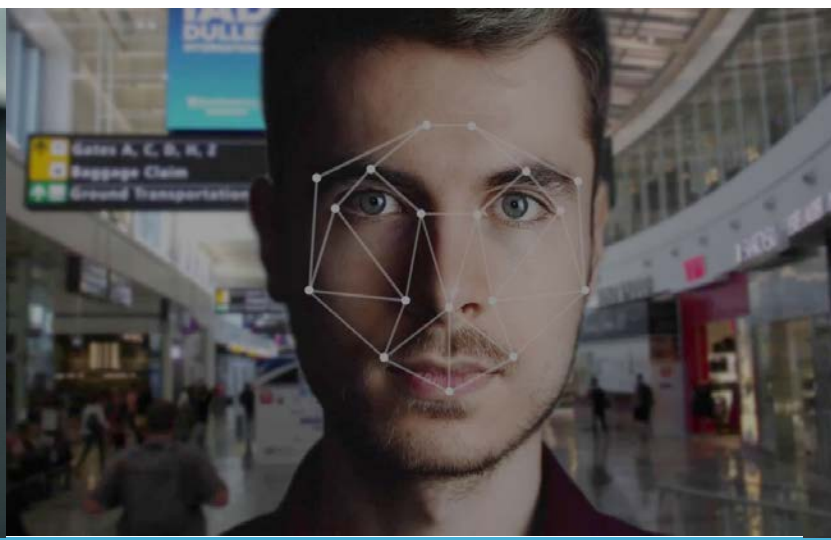
Passenger-facing software used for biometric boarding



## veriScan Agent

Dashboard software used by airline agents to view real-time biometric transactions & statistics





## Fast

- Less than a week for full airport deployment
- Processes a passenger in under 2 seconds
- Integrates with an airline's boarding system

## Secure

- Built and meets CBP secure transmission requirements
- Security certified to OWASP standards
- Doesn't save or store passenger photos or personal information

## Cost Effective

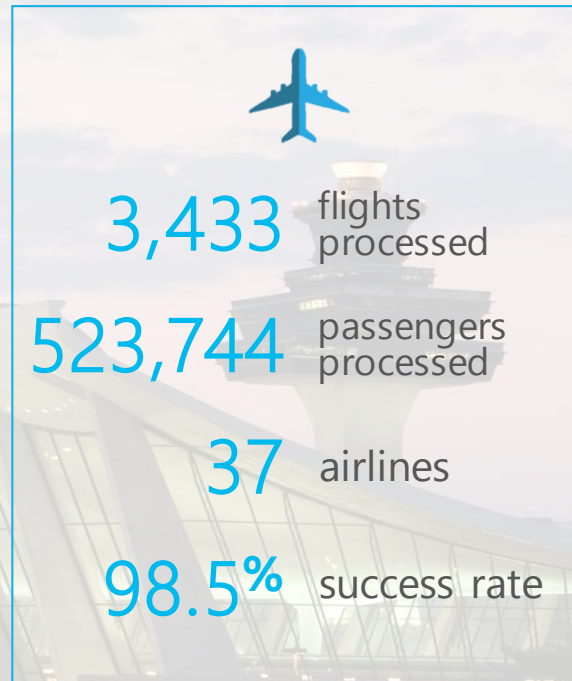
- No added infrastructure required
- Fraction of the cost of comparable, commercially-procurable systems
- Scalable to meet any airport and airline needs



# veriScan Traction: Timeline, Usage Stats, Awards

## Milestones to Date

- June 2018: veriScan begins development
- July 24, 2018: veriScan deployed @ IAD
- Sept 6, 2018: veriScan debuts @ CBP press conference
- Nov 2018: One-step boarding debuts @ DCA
- Dec 2018: Biometric entry pilot @ Dublin Airport
- Jan 10, 2019: Contract with DFW signed
- Jan 21, 2019: DFW implementation underway
- Feb 1, 2019: IAD hosts Airport Biometrics event
- Mar-Jun 2019: On-going sales, marketing
- Jun 3, 2019: Seattle Tacoma implementation
- July 2019: Sabre integration
- Aug 26, 2019: American Airlines go-live @ DFW



## Awards



2019 AA AE Most Innovative Airport Award  
(large hub, category partnership)



2019 SXSW Interactive Innovation Award  
Finalist



2019 Digital Edge 50 Award

# veriScan Pilots and Implementations

## Government



U.S. Customs and Border Protection



Transportation Security Administration

## Airports



DFW



## 1-Step Integration (Paperless Boarding)



jetBlue



AIRFRANCE



## 2-Step Integration



porter



interjet



SAS

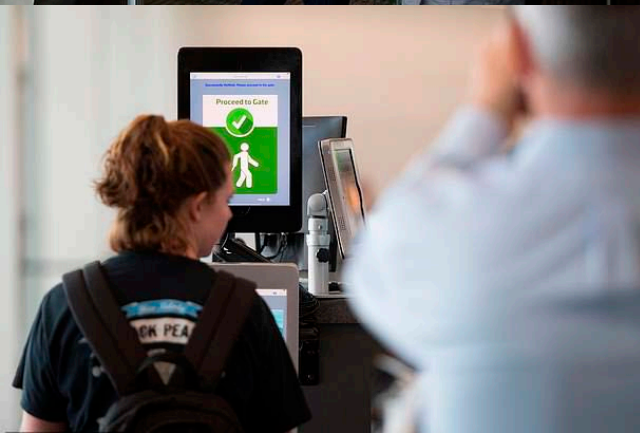
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# Key Ingredients to Success



Partnership | Technologies | Processes





# veriScan: Upcoming Innovations

- Air Entry: pilot underway soon at IAD
- Seamless curb-to-gate experience: identity management at all airport journey touchpoints
- Airport Ops: secured area access, escort, and door entry
- Blockchain: key touchpoints of the journey

# Thank You!



**METROPOLITAN  
WASHINGTON**  
AIRPORTS AUTHORITY

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