OST®
CONVERGING MISSION,
INNOVATION, AND TECHNOLOGY

Smart Airports

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Discussion Outline

- OST Background
- The Complex Aspect of Civil Aviation
- Smart Airport Eco-System
- Our Value Proposition
- Conclusion

Who We Are

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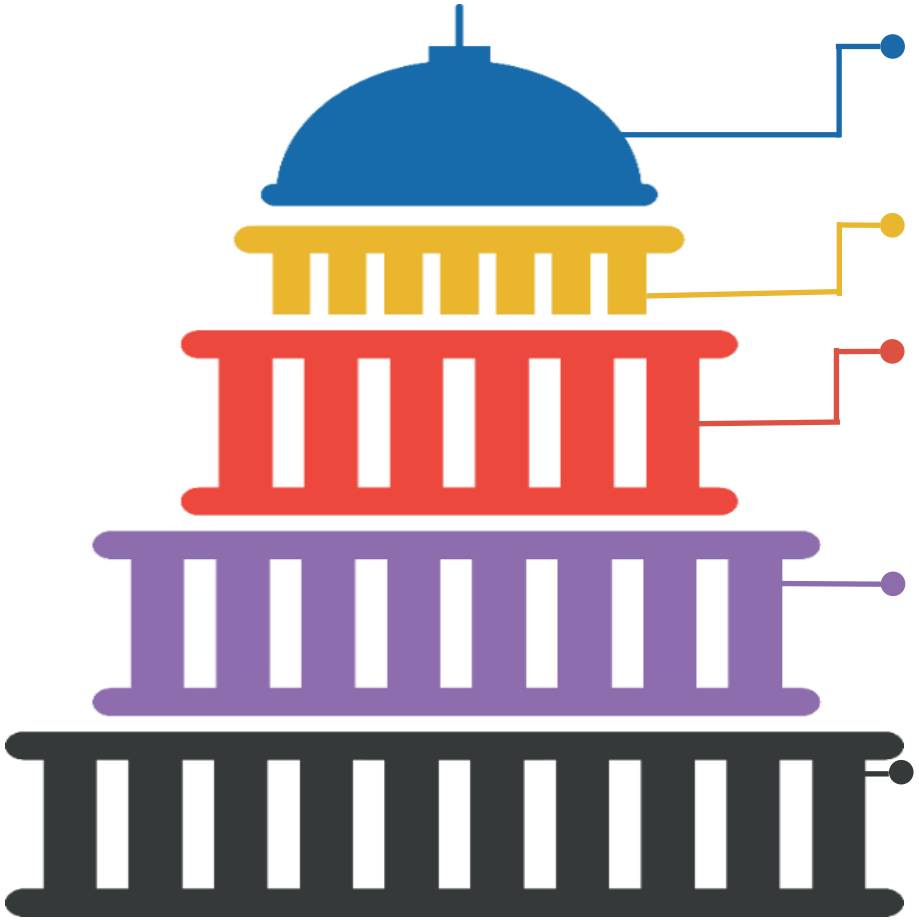

WHO WE SERVE

80% Federal Government
20% State and Local Government

TOP SECRET

Facility Clearance

CERTIFICATIONS & APPRAISALS

CMMI Level 5 | CMMI Service Level 3
ITIL V3-1 | SAFe/Agile/DevSecOps | AWS Cloud
ISO:9001:2008 | ISO standards 27001, 20000, 10002

OUR KEY CUSTOMERS

- Federal – Army, Air Force, Navy, FAA, FEMA, FTA, DOE, IRS,
- State & Local: DC, MD, VA, PA

CENTER OF ENGINEERING & INNOVATION

- Cyber and Smart Initiatives
- Engineering Complex Solutions
- Disruptive Transformation & Innovation

Supporting Federal, State, Local

AI/Machine Learning

Data Fusion, Correlation & Visualization

Anomaly Detection

Cyber Security

Asset/Resource Management

OST's Key Presence

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OST brings over 19 years of DOT and FAA experience with in-depth knowledge of their programs, requirements and procedures

- 125+ FAA contracts (task orders)
- Shared Services for the CIO's Office supporting 50 + Mission Critical Systems, Maintaining & Transitioning Data Centers
- IMS/Budget Support to NextGen Office (ANG)
- Supporting the Enterprise Network Operations (ENOCC) & Cyber Security
- FAA Asset Management (Real & Personal property - $9+ Billion)
- Engineering Services to support the NAS including Spectrum Management, VOR/MON, DME/DME, etc.
- Financial & Capitalization Support Services
- Airports Subsidies and Grants process

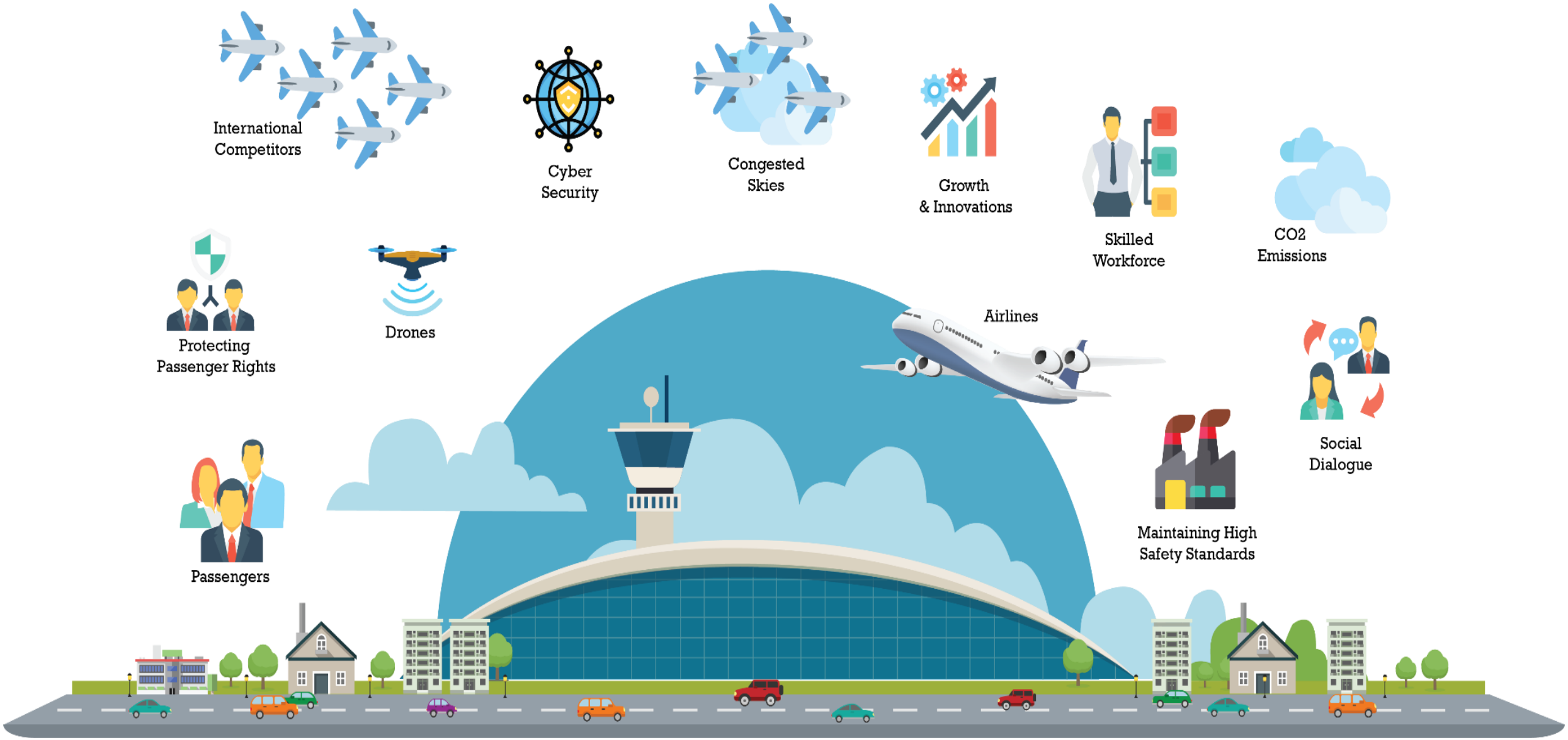
Over a decade of DHS experience (FEMA, CBP, IECRS)

- FEMA – Disaster Management, Risk Mitigation, Cyber Security, IT Solutions, Legacy Modernization
- CBP – Network modernization efforts to provide secured and un-secured network segmentations.
- IECRS- Architected IECRS Infrastructure for Public Agencies world-wide (911, NG911, NENA).

10 Years experience in Private Financing / Public Private Partnership (P3/P4)

- Working closely with financial partners to determine the feasibility and structure for P3 initiatives
- Bring unique combination of innovative technology and financial solutions
- Provide solution with best value proposition to the Customer - for the Customer

The Complex Aspects of Civil Aviation



Aviation Facts…

A need for smarter airports

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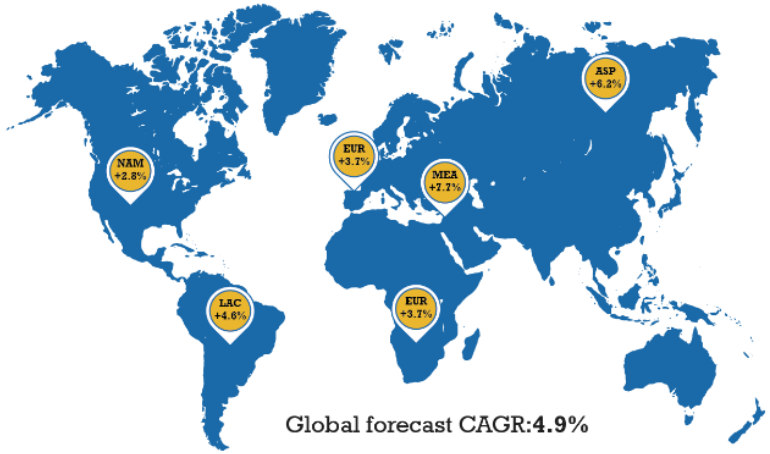
Passenger traffic growth 2015-2040

(Compounded Annual Growth Rate)

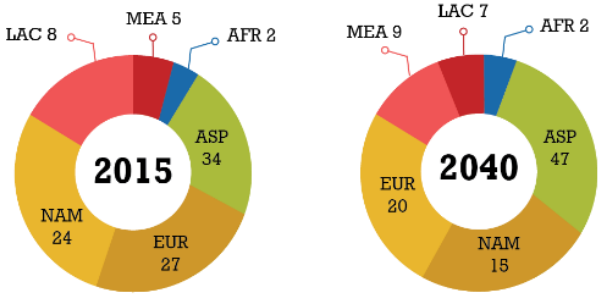


Global forecast CAGR:**4.9%**

Passenger traffic to **double** to over

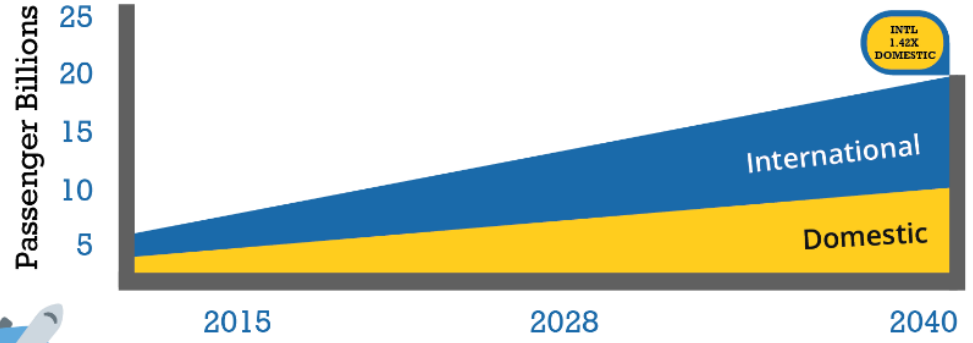
14 billion by 2029

Market Share(%)
by region



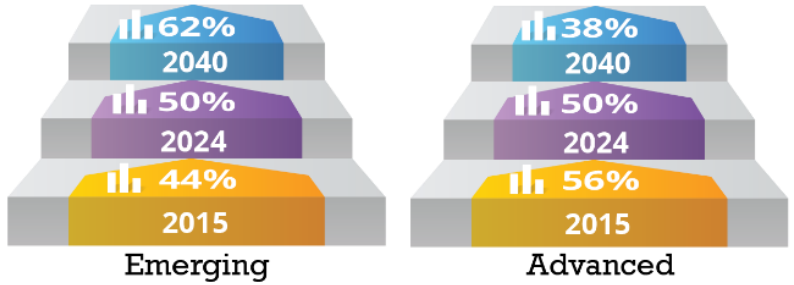
International passenger traffic

will surpass domestic traffic after 2028 Passenger Billions



Future growth in air passenger traffic

will originate from emerging markets



Long-term cargo and movement growth

(CAGR 2015-2040)

Smart Airport Ecosystem

Airlines, Airports, Cargo & Passengers

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Air-side & Landside

Environmental Sustainability

- LED Lighting
- Smart Poles
- Green Buildings
- Sensors: Air, Noise, Video, Light monitoring

Safety & Security

- Video/ Scene Analytics
- Smart Resiliency planning
- Flood Abatement
- Smart Health Services

Operational Optimization

- Smart Parking
- Advanced Network architecture
- Personalized Wayfinding
- Central operations management platform

Financing Solutions

- Up to 100% of capital investment
- Assist in obtaining International, Federal & State grants
- Reduce expenses
- Revenue generation

Environmental Sustainability

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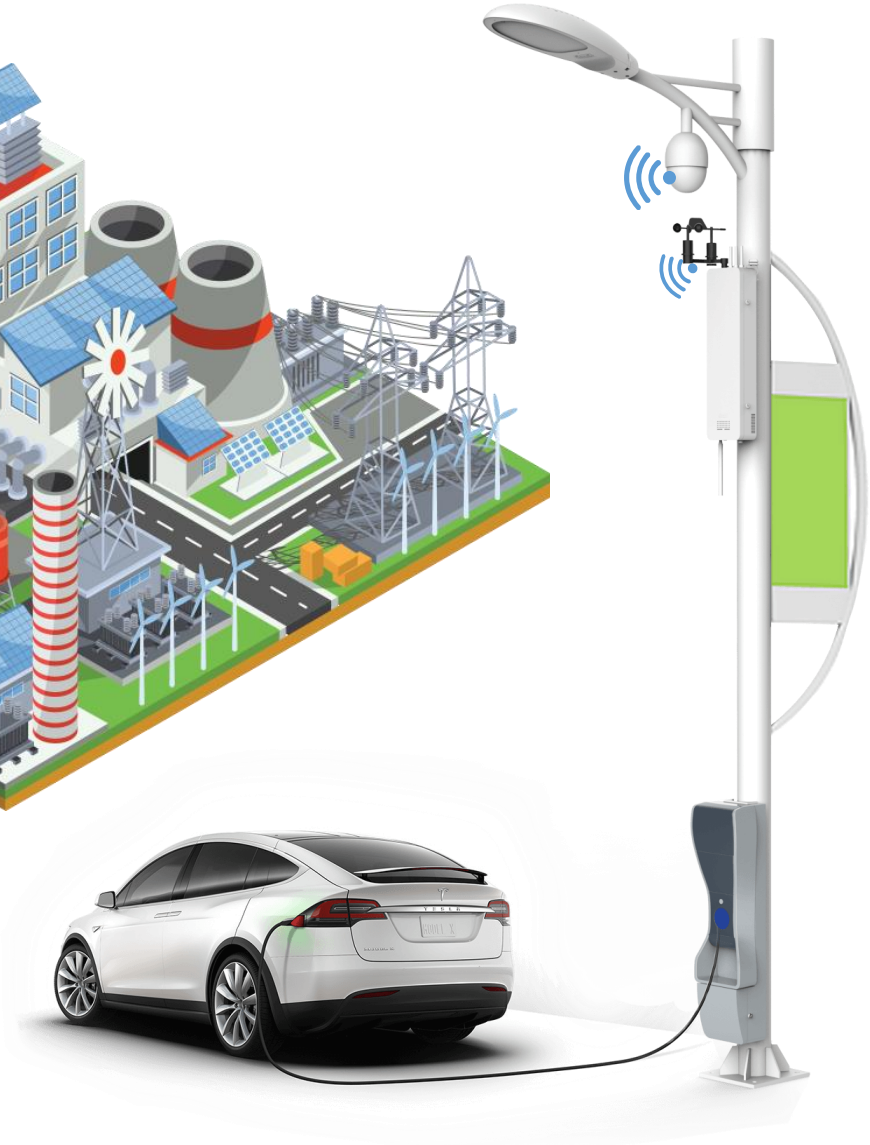
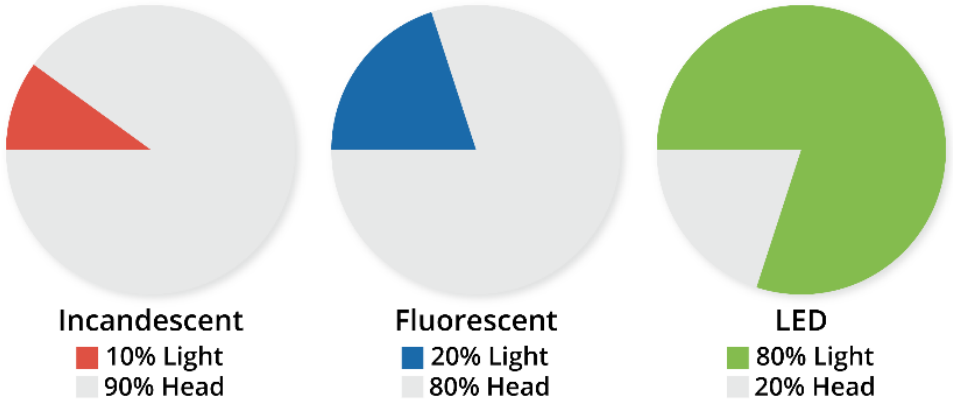
Features and benefits

- Smart Poles with Integrated Solutions
- Smart LED Lighting & Wi-Fi / Li-Fi
- Renewable Energy – EV, Solar, WTE, CoGen Plants, etc.
- LEED Certified – Centralized HVAC/Chillers, Glass Panels,
- Intelligent Transportation Management System

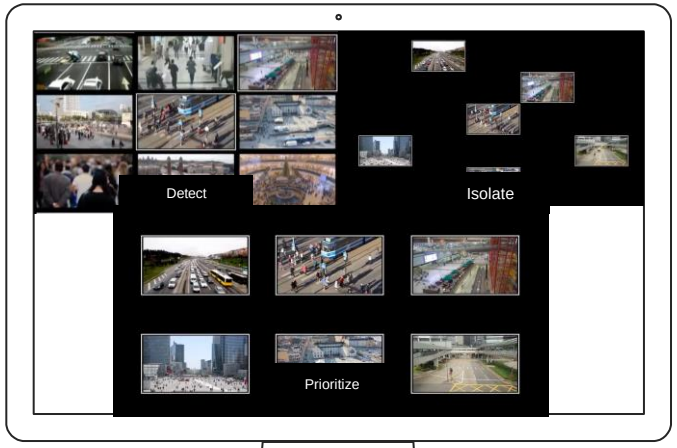




Safety & Security

Features and benefits

- **Reactive, Proactive, Predictive, Preventive**
- Better emergency preparedness (Faster response)
- Automated Inspections – Aircraft, Terminal, Runway,
- Integrated Cyber and physical security solutions
- Video Analytics (AI/ML)
  - Static object detection, Suspicious packages, etc.
  - Machine learning based analytics
  - Foot traffic analysis
  - Queue detection
  - Facial recognition
  - Traffic monitoring
  - Incident analysis
  - Vehicle counting
  - License plate readers



Operational Optimization

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Features and benefits

- Horizontal IoT platform
- Critical infrastructure monitoring and control
- Real time reporting and analytics
- Improved decision maker response time

Unified Platform for Smart Airport

(Advanced Analytics - Monitoring and Controlling)

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Presentation Layer

- Real Time Control Panel
- Datawarehouse /BI Tool
- Rules Service
- Custom Dashboards
- Asset Monitoring
- Open Data

Cloud Layer

(Structured, Un-structured and Semi-Structured Data)

IoT Platform

(Advanced Analytics, Artificial Intelligence & Machine Learning)

Integration Layer

Subsystem

Legacy & Modern Systems

- Airlines
- Cyber
- Drones Inspection
- Incidents Reporting
- Passengers
- Environmental
- Flood

Our Value Proposition

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Private Investment

- Up to 100% Capital Investment (5 to 30 years)
- Reduced expenses and new revenue generation
- Billions already committed for Smart Infrastructure Projects

Centre of Excellence & Innovation

- Collaboration with HEIs (HBCU's, AAU & APLU)
- Partnership with leading global non-profit organizations
- Capabilities:
  - Artificial Intelligence
  - Machine Learning
  - Smart Infrastructure
  - Aviation (CDRA with FAA)

Uses service model

- "Solution as a Service"
- No cost technology upgrades
- Increased quality of service to citizens

Team of established vendors

- Covering Technical, Engineering, **Financial,** Advisory, Socio-Economic, & Educational domains

Leverage Federal Grants & Subsidies

- Assist in obtaining Federal grants and subsidies from federal agencies - DOT, DOE, EPA, DHS, etc.

Bowie State University · Tuskegee University · Dillard University · Fisk University · University of the District of Columbia · Prairie View A&M University · Georgetown University · Morgan State University

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Thank You

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