

ITF Industry Day: IDEA BAA – Window 2

**Cohort B submissions due
October 17th, 2023**



Agenda



Transportation
Security
Administration

- I. Check-in – 10 min. (11:00am-11:10am)
- II. Welcome / Introduction to CM&I – 10 min. (11:10am-11:20am)
- III. TSA and Innovation Task Force Overview – 10 min. (11:20am-11:30am)
- IV. BAA Window 2 Solicitation – 15 minutes (11:30am-11:45am)
- V. ITF Demonstration Lifecycle – 25 min. (11:45am-12:10pm)
- VI. Lab and Field Data Collection – 20 min. (12:10pm-12:30pm)
- VII. Audience Q&A Session – 10 min. (12:30pm-12:40pm)
- VIII. Break – 15 min. (12:40pm-12:55pm)
- IX. Fireside Chat – FSD State of Nevada (Karen Burke) and ITF DMx Branch Manager (Christina Peach) – 20 min. (12:55pm-1:15pm)
- X. Fireside Chat – Chief Innovation Officer (Steven Parker) and ITF Division Director (Matt Gilkeson) – 30 min. (1:15pm-1:45pm)
- XI. Closing – 15 min. (1:45pm-2:00pm)

TSA's Operational Context

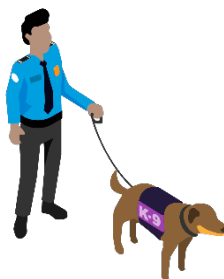
The Transportation Security Administration typically...

Deploys

60,000+ employees, including **~50,000** Transportation Security Officers (TSO) at **440** airports

1,000+ canine teams tasked to screen passengers and cargo

Federal Air Marshal Service (FAMS) on designated flights



Screens

2+ million passengers per day

~1.4 million checked items for explosives and dangerous items

~5.5 million carry-on items for explosives and prohibited items



Vets

~17 million persons with access to the transportation system for ties to terrorism

~2.2 million passenger records by SecureFlight



Secures

23,000 domestic flights operated by **200** US and foreign carriers

2,600 inbound international flights



TSA's Priorities



Improve Security

Strengthen the effectiveness of TSA's capabilities

Modernize transportation vetting and improve intelligence driven operations

Sustain and expand security partnerships



Accelerate Action

Reduce the time to field for solutions

Build a culture of innovation

Simplify access for our partners and stakeholders



Commit to our People

Foster an environment of continual learning and growth that instills shared organizational values

Promote an entrepreneurial spirit and operational excellence

Support our workforce



CM&I Overview

TSA Capabilities

Capabilities Enhancing the Passenger Experience at Checkpoint

Checked Baggage advances effective and efficient material and nonmaterial solutions in the checked baggage space.
(Lead: Craig Mosford)

Identity Management ensures integration of identity-related activities including enrollment, validation, vetting, authentication, and verification
(Lead: Jason Lim)

Canine Screening identifies explosive materials on passengers and in passenger bags at the checkpoint.
(Lead: Patrick Yeoman)

Alarm Resolution identifies, analyzes, verifies, and resolves alarms at the checkpoint.
(Lead: Kevin Chan)

Accessible Property Screening screens a passenger's belongings and carry-on baggage.
(Lead: Jason Hull)

On-Person Screening identifies threats directly on passengers using metal detectors and millimeter wave technology.
(Lead: Dan Williams)



Capabilities Supporting the Airport and Beyond

Innovation Task Force (ITF)

Identify and demonstrate **emerging solutions** to increase security effectiveness and improve passenger experience (Lead: Matt Gilkeson)

Field Information Systems information technology systems that support the workforce and passenger experience.
(Lead: Douglas Ellmore)

Multimodal and Public Area Capabilities provides surface security technology for public area protection to and from the airport.

Counter Unmanned Aircraft Systems investigates the usage of aerial systems within public transit and areas.
(Lead: Jim Bamberger)

Surface and Cargo develops requirements for security technologies and coordinates policy within surface and cargo.
(Lead: Allan Collier)

Capability Management & Innovation (CM&I)

CM&I manages Multimodal & Public Area Capabilities (MPAC) and Innovation Task Force (ITF) to support capability areas at the airport and beyond. Additionally, CM&I manages the individual capability portfolios run by Capability Managers (CMs). CMs determine how to mature the capabilities through partnerships with RCA's Analysis and Engineering (A&E), varying TSA offices, external vendors, and additional stakeholders.

CM&I Mission

- ✓ CM&I provides enterprise oversight for all TSA operational capabilities throughout their lifecycle to ensure proper resourcing and alignment to DHS and TSA strategies and priorities.
- ✓ CM&I integrates all materiel and non-materiel capabilities into the security architecture to ensure a cohesive set of innovative security solutions to meet the challenges of today and tomorrow.
- ✓ Additionally, CM&I coordinates innovation efforts with stakeholders including current and emerging technology demonstrations intended to enhance operational capabilities and develop efficiencies.

Role of CMs at TSA

- ✓ CMs are responsible for streamlining integration across TSA, bringing a holistic perspective to capability development to provide the field the right set of solutions to address the threats of today and tomorrow.
- ✓ CMs develop Capability Roadmaps to serve as the planned path forward and future state for TSA capabilities at the airport.
- ✓ CMs chair Capability Integration Councils to bring together equity stakeholder across the enterprise.

CM&I Divisions

Capability Managers

Multimodal & Public Area Capabilities

Innovation Task Force

Key Services



Screening Detection Technology



Identity Proofing, Vetting & Verification



Resolve Screening Alarms



Enhance Threat Detection



Checked Bag Screening Detections



Advance Field Information Systems



Deploy Canine Capabilities



Enhance Air Cargo & C-UAS Security Solutions




Demonstrate Innovative Solutions



Analyze Future Technological & Field Capabilities

Stay Connected and Informed

CM&I Contact Information

-  Accessible Property Screening: Jason.Hull@tsa.dhs.gov;
-  Identity Management / CAT: Identity.TSAIDM@tsa.dhs.gov;
-  Alarm Resolution: Kevin.Chan@tsa.dhs.gov;
-  On-Person Screening: OPSCM@tsa.dhs.gov;
-  Checked Baggage: CBCM@tsa.dhs.gov;
-  Field Information Systems: Douglas.Ellmore@tsa.dhs.gov;
-  Canine: Patrick.Yeoman@tsa.dhs.gov;
-  Innovation Task Force: InnovationTaskForce@tsa.dhs.gov;
-  Multimodal and Public Area Capabilities: Jim.Bamberger@tsa.dhs.gov

Additional Resources

Donation Product List - The Acceptable Capability List (ACL) serves as TSA's official list of Capabilities or Transportation Security Equipment (TSE) that TSA is able to accept from Donors with the intent of donating to TSA operations

Contact Information



Melissa Conley

Executive Director, Capability Management and Innovation Requirements and Capabilities Analysis (RCA)
Melissa.Conley@tsa.dhs.gov

Wendy Chaves

Deputy Executive Director, Capability Management Requirements and Capabilities Analysis (RCA)
Wendy.Chaves@tsa.dhs.gov



ITF Overview

ITF Program Overview



ITF Inception

Founded in 2016, ITF was initiated and championed by TSA out of a need heard from industry—to better understand the operational environment earlier in the development cycle—and from TSA—to better define requirements to close capability gaps in partnership with stakeholders.



ITF Mission

Foster innovation by integrating key stakeholders to **identify and demonstrate emerging solutions** that:

- Increase security effectiveness and efficiency
- Improve passenger experience and flow of commerce
- Deliver solutions that secure freedom of movement throughout the nation's transportation system.



ITF 2.0 Innovation Lifecycle

ITF utilizes a **non-linear, six-phased approach: Aspire, Discover, Select, Demonstrate, Scale, Mobilize**. This approach engages and spans across the TSA enterprise to drive innovation solutions that align to bold and specific goals sponsored by TSA Senior Leadership.

ITF Activities codified in the FAA Reauthorization Act of 2018

- ✓ Identifying and developing innovative technologies;
- ✓ Conducting field demonstrations;
- ✓ Gathering performance data;
- ✓ Enabling a small businesses with innovative technologies to participate in demonstrations;
- ✓ Conducting quarterly collaboration meetings with industry;
- ✓ Submitting an annual report on the effectiveness of key performance data to the appropriate committees of Congress.

ITF 2.0 Lifecycle

ASPIRE

Set a bold strategy and goals for innovation and establish targets that are cascaded across the organization

MOBILIZE

Define stakeholder roles and governance processes and inspire a culture of experimentation

SCALE

Remove roadblocks to successfully transition projects, set up documentation to support solutions as they scale into the operational environment

ASPIRE

DISCOVER

DISCOVER

Prioritize customer needs, source problems, and potential solutions from multiple channels

MOBILIZE

SELECT

SELECT

Align portfolio pipeline with innovation strategy, balance for time and risk and resource based on milestones

SCALE

DEMONSTRATE

DEMONSTRATE

Demonstrate with 75% solution and frequently iterate, create cross-functional teams with clear leaders



Innovative Partners

ITF works with many partners to identify and demonstrate new capability solutions.

Government Partners

Homeland Security
 Science and Technology

DEFENSE INNOVATION UNIT

Sandia National Laboratories

U.S. Customs and Border Protection

SILICON VALLEY INNOVATION PROGRAM

Pacific Northwest NATIONAL LABORATORY

Airport & Airline Partners



The Smart Security Management Group (SSMG)

Partnerships with Foreign Governments



RCA | REQUIREMENTS & CAPABILITIES ANALYSIS

International Partners

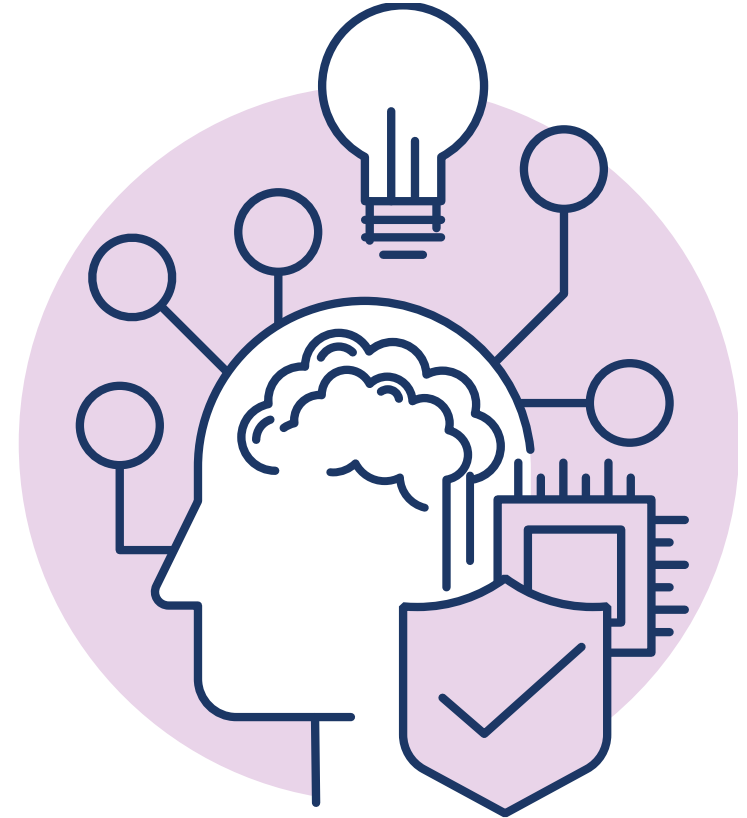
A night sky photograph showing the Milky Way galaxy as a dense band of stars and dust stretching across the frame. A bright star is visible in the lower-left quadrant. A thin, white, diagonal line is drawn across the upper-middle part of the image. In the bottom-left corner, there is a white rectangular box containing the text 'IDEA BAA Window 2'.

**IDEA BAA
Window 2**

The IDEA Broad Agency Announcement

The Innovative Demonstrations for Enterprise Advancement (IDEA) Broad Agency Announcement (BAA) is the method traditionally used by ITF. The IDEA BAA seeks to identify emerging **people**, **process**, and **technology** capabilities for demonstration in live airport environments. The BAA serves as the **formal, competitive intake method** for ITF-led solution demonstrations to capture operational data and inform future requirements.

The IDEA BAA seeks solutions that:



Align to the TSA Mission



Address TSA Capability Gaps



Improve Security Effectiveness



Improve Screening Efficiency



Enhance the Passenger Experience

Introduction to the IDEA BAA

The purpose of the **IDEA BAA Window 2** is to support the TSA's mission by "**Accelerating Action**," and rapidly fielding innovative solutions that are rigorously evaluated and then demonstrated in a live operational environment. The IDEA BAA seeks solutions that:



Align to the TSA Mission



Address TSA Capability Gaps



Improve Security Effectiveness

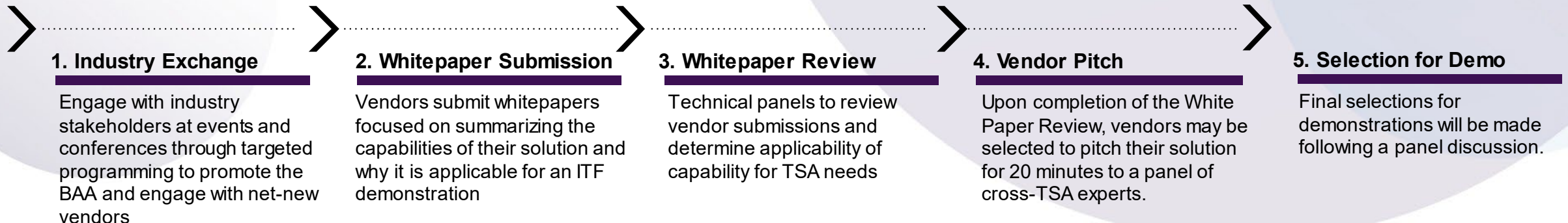


Improve Screening Efficiency



Enhance Passenger Experience

The IDEA BAA process for Window 2 identifies these disruptive capabilities utilizing the following Submission and Selection process, each Window may have a revised submission and selection process:



IDEA BAA Window 2 Focus Areas (1/2)

IDEA BAA Window 2 highlighted five focus areas which are linked to TSA current priorities. Vendors were encouraged to identify specific problem statements or capability gaps that are being addressed by their solution.

Focus Areas

Description



Screening Efficiency

Solutions that: enable secure remote data transmission to enable/support remote screening; enable the Security Technology Integrated Program (STIP) client for seamless data reporting of fielded Transportation Security Equipment; lower false alarm rates for both on-person and accessible property screening; enable dynamic algorithm switching for the efficient screening of a traveler/non-traveler in accordance to their risk status; enable seamless divestment of accessible property at the passenger screening checkpoint or non-traditional screening location; data reporting tools that enhance the scheduling of TSA personnel.



Innovation Checkpoint

Solutions sought of emerging and innovative technology for accessible property screening, on person screening, alarm resolution screening, data integration, crowd movement displays or analytics, innovative equipment configurations, upgrades for new and/or existing transportation security equipment (TSE) consisting of any hardware and/or software to enhance screening operations, effectiveness, efficiency or the passenger experience to support the ICP. Located at Harry Reid International Airport (LAS) in Las Vegas, the ICP is an extension of the Advancing the Checkpoint Environment (ACE) mission to achieve the ITF strategic goals of 1) braving uncharted solution territory, 2) creating an environment for collaboration, 3) enabling TSA process improvement, and 4) championing a culture of innovation. As part of the ACE concept, the ICP is an integrated project environment which provides unique opportunities to modify and define the future aviation security process and enhance the passenger experience. Solutions may come from any of the focus areas, however, for consideration for the ICP the solution must be clearly identified as for the ICP.

IDEA BAA Window 2 Focus Areas (2/2)

IDEA BAA Window 2 highlighted five focus areas which are linked to TSA current priorities.

Focus Areas

Description



Security Effectiveness

Solutions that: provide explosive detection through non-iodizing radiation for both on-person and carry-on property based threats, at both a passenger screening checkpoint and non-traditional screening environment; clear on-person and/or accessible property alarms seamlessly (either at the passenger screening checkpoint or non-traditional screening location) continuously, and in an uninterrupted manner; provide automatic validation of a traveler/non-traveler/aviation workers identity and risk status; identify threatening body movements/actions of travelers/non-travelers/aviation workers; support the implementation of 'One Stop' Screening agreements; detect explosives in surface transportation environments where physical screening is limited; enable Threat Image Projection (TIP) in checked baggage and/or checkpoint to provide seamless training and Transportation Security Officer certification; detect potential on-person anomalies at a distance; enhance canine detection capabilities.



Regulatory Compliance

Solutions that: support the inspection activity of regulated aircraft/airport operators, both domestic and foreign (as applicable), to their security program; validate chain of custody for pre-screened cargo; validate that regulated entities have conducted security assessments and have implemented security plans; validate passenger screening operations at Last Point of Departure airports adhere to security plans; enable remote and immediate incident reporting.



Traveler Experience

Solutions that: push critical communications directly to travelers, including pre-travel preparation advisements; support off-premise checkpoint and/or checked baggage screening, to include the secure transport of 'screened' individuals from an off-premise screening location to the sterile area; increase the traveler/non-travelers' ability to adhere to divestment advisements; reduce travelers' stress and cognitive burden through audio and/or visual means.

Submission Best Practices



Address All Whitepaper Elements

Be sure to provide clear answers to all elements requested in the white paper:

- Company Information and Point of Contact
- Solution Summary and Description
- Problem Statement Alignment and Resolution
- Solution Performance and Government History
- Technical Details and IT Security Overview
- Demonstration Feasibility with Rough Order of Magnitude
- Demonstration Goals and Metrics



Understand ITF Demonstrations

Use today's presentation to tailor whitepaper response to **align with ITF's demonstration process**, especially around demonstration feasibility, goals, and metrics.



Be Clear With Any Cost/Timeline Factors

Clearly and accurately address any cost or timeline factors that may prohibit a timely start to a demonstration. Submissions should be ready to demonstrate **within 6 months of selection**.



Ensure SAM.gov registration

Vendor must be registered in SAM.gov



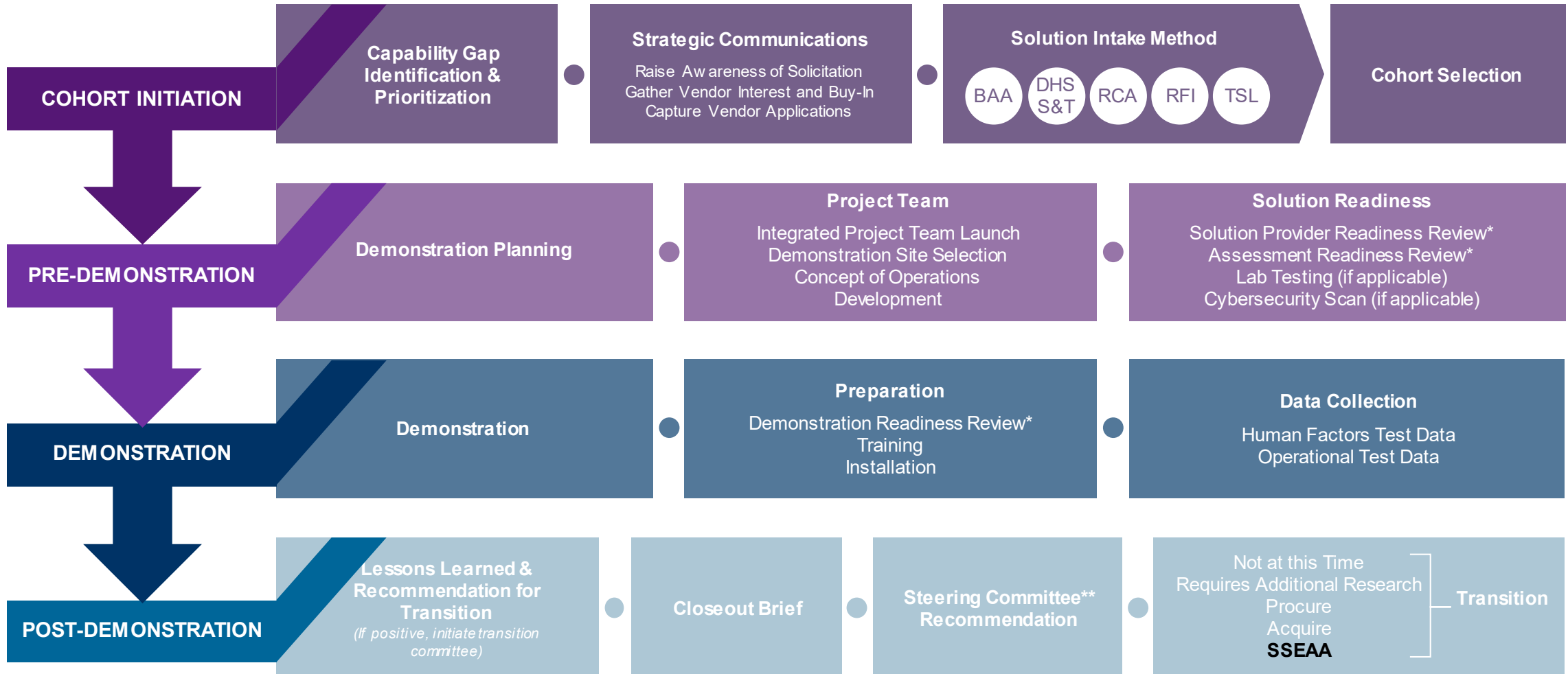
Ask Questions Prior to Submission

Use the remaining time before the submission deadline to get clarification for any outstanding questions you may have; this may help mitigate any questions from TSA reviewers later in the process.

A night sky photograph showing the Milky Way galaxy as a dense band of stars and dust stretching across the frame. A bright, thin white streak, likely a meteor or comet, is visible in the upper left quadrant. The background is a deep, dark purple and blue, filled with numerous small, distant stars.

ITF Demo Lifecycle

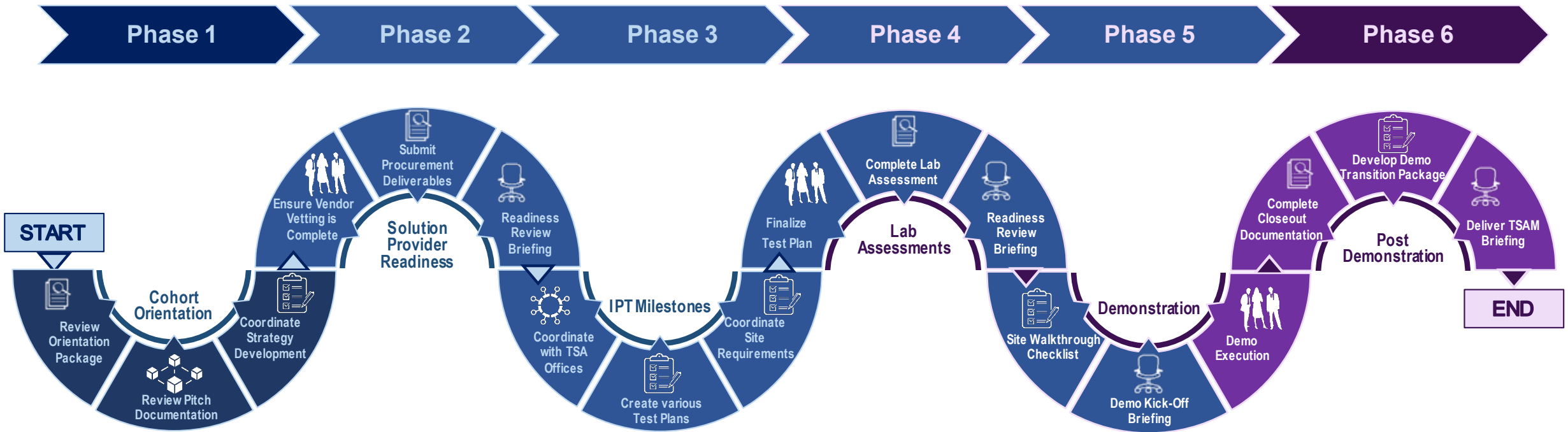
ITF Solution Demonstration Lifecycle



*Demonstration Milestone Deliverable

**As referenced in the TSA Systems Acquisition Manual (TSAM)

ITF Task List & Timeline Snapshot



ITF Agreements

Other Transactional Agreements (OTA) & Bailments

Other Transaction Agreements are not a procurement contract, grant, or cooperative agreement. They are used to provide solution providers with funding to offset the costs associated with a product demonstration. A bailment is also incorporated in the OTA or can be a standalone agreement allowing for TSA to take possession of the solution for a finite timeframe.

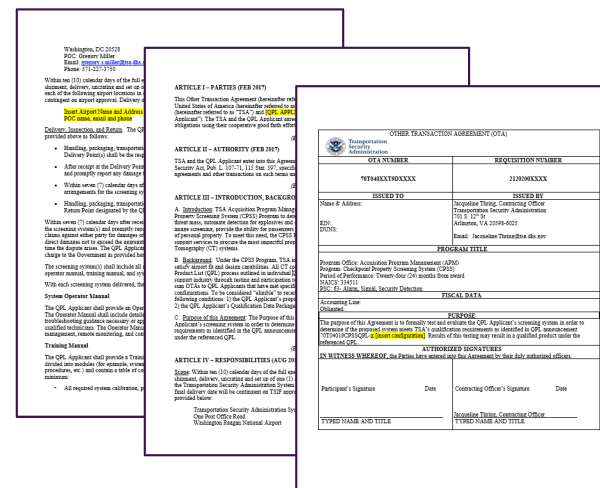
Provides funds to offset costs associated with a demonstration

Incentive for companies to apply and demonstrate innovative solutions



Based on a percentage of the government's Independent Government Cost Estimate (IGCE)

Mechanism to provide funding in support of a solution demonstration




OTA Agreement with TSA Contracts & Procurement (C&P)

OTA Development Process

- ✓ Vendors become eligible after meeting various conditions set by TSA including but not limited to registration with SAM.gov, submitting a BAA White Paper, conducting a Vendor Pitch, and receiving approval from TSA to demonstrate the submitted solution.
- ✓ An agreement is formulated to assess the vendor's solution to determine if it increases the probability of achieving TSA's desired goal. OTA funds are based on the percentage of the government's IGCE. They are used to support solution installation, testing and training: ITF does not retain any bailed property at end of the OTA's period of performance.
- ✓ OTA's focus on Demonstration Lifecycle technical results and leverages the percentage of the Government's IGCE that is developed based on the required Rough Order of Magnitude (ROM) submitted by the vendor





**Software
Solutions:
What you need
to know**

Solutions Security: What you need to know

Cyber Scan

Cyber Scan is performed by ITF and the Information Assurance Division (IAD) within the Office of Information Technology within TSA.

Helps discover vulnerabilities within the software solution.



Physical Audit

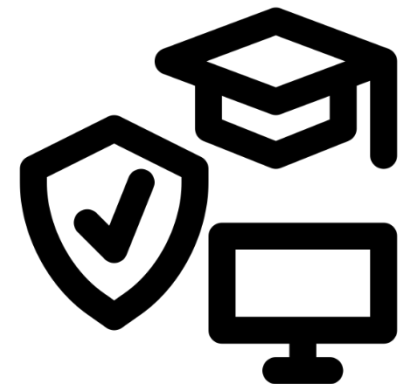
If software solution is incorporated into equipment, review the outside of the equipment to ensure that ports cannot be accessed to mitigate vulnerabilities.



Lessons Learned

Ensure that the software is ready to be demonstrated when submitting the solution.

There are two scans that take place: Cyber Scan by ITF and then a secondary Cyber Scan by IAD



IT Cybersecurity Policies & Requirements

Federal Information Security Management Act (FISMA) of 2002

National Institute of Standards and Technology (NIST) Special Publication (SP) 800-5

DHS 4300A Sensitive Systems Policy Directives

TSA Management Directive 1400.3 Information Technology Security

Defense Information Systems Agency (DISA) Security Technical Implementation Guides (STIGs)



IT Cybersecurity RCA-IAD Demonstration Process & Requirements



1. Engagement

- Integrated Project Team (IPT) with Information Assurance & Cybersecurity Division (IAD)

2. Assessment Request

- Data Protection Plan
- Vendor Security Plan (SP)

3. Pre-Assessment

- Identify Technical and Information Security Point of Contacts (POCs)
- Governance, Requirements, & Controls (GRC) questionnaire
- Provide Data Call for IAD Secure Infrastructure & Vulnerability Management (SIVM)

4. Assessment

- Preliminary Risk Assessment
- Technical security assessment
- Physical Security Assessment

5. Post Assessment

- Review results of the assessment

6. Risk Memo

- Results of the limited assessment to the Chief Information Officer (CIO)



Questions to Consider

- Are you using Cloud and is it on the FedRamp authorized list?
- Are you addressing the Open Web Application Security Project (OWASP) Top 10 Web Application Security Risks?
- How are you implementing two factor authentication? How about strong authentication?
- How are you securing the communication from the equipment?
- How are you monitoring or detecting unauthorized activity?
- What is your patching and maintenance plan?
- How do you ensure the integrity of these systems when maintenance personnel use their diagnostic equipment (e.g., laptops, testers, USBs)?
- How will the system protect its data, both at rest, in transit and in use?

Top 10 Web Application Security Risks

1. Broken Access Control
2. Cryptographic Failures
3. Injection
4. Insecure Design
5. Security Misconfiguration
6. Vulnerable and Outdated Components
7. Identification and Authentication Failures
8. Software and Data Integrity Failures
9. Security Logging and Monitoring Failures
10. Server-Side Request Forgery

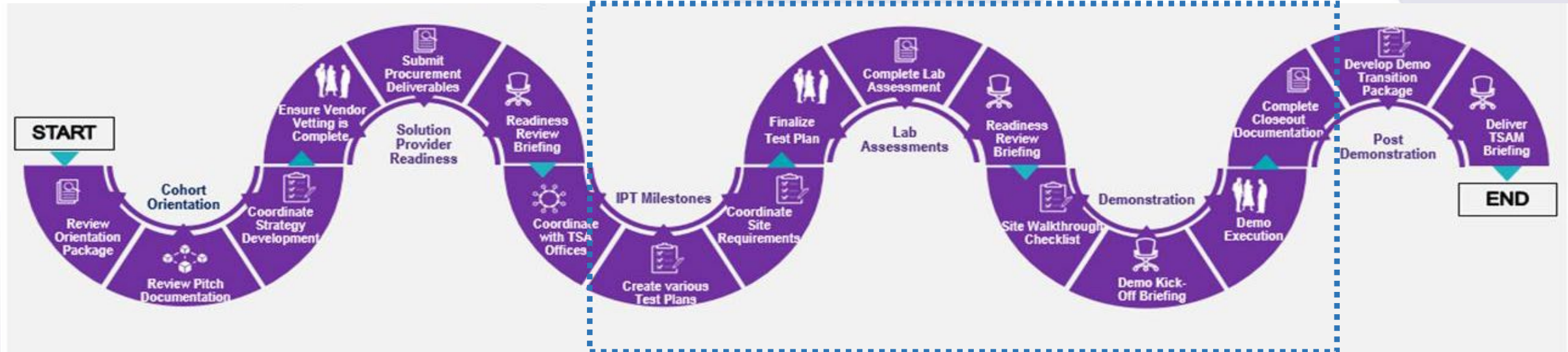
[OWASP Top Ten | OWASP Foundation](#)



A night sky photograph featuring the Milky Way galaxy, which appears as a dense, glowing band of stars and dust stretching across the frame. A bright, thin white streak, likely a meteor or comet, is visible in the upper left quadrant. The background is a deep, dark purple and blue, filled with numerous individual stars of varying brightness. In the bottom right corner, there are faint, dark, curved lines that appear to be part of a telescope's structure or a similar object.

Lab and Field Data Collection

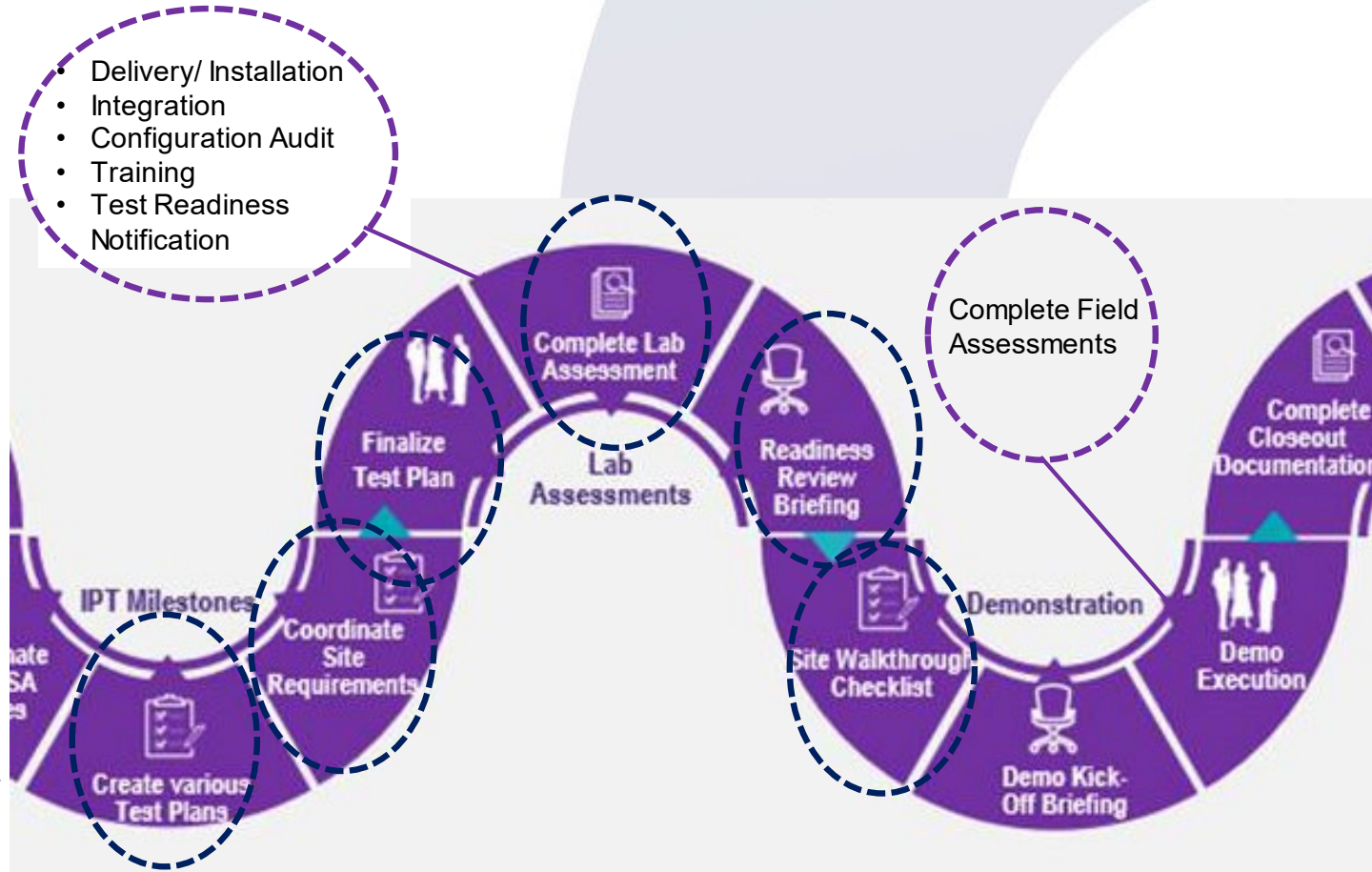
Role of T&E within ITF



Some context

- Less formal data collection, work from loosely-defined goals/metrics
- Collaborative, integrated test environment
- Aid in early discovery of issues and expedite technology maturation
- Aid ITF in determining path forward with technology

Role of T&E within ITF



Role of T&E within ITF

- **ITF Solution Provider**

- Provide information on system functionality, data flows, etc.
- Support system installation and integration.
- Support TSA in performing configuration audits.
- Support user/Transportation Security Officer training on system operations.
- Acknowledge/sign the Test Readiness Notification memorandum.
- Perform maintenance repairs when requested.

- **Test Director**

- Support demonstrations and data collection activities.
- Coordinate with stakeholders to ensure data collection is conducted according to the data collection plan.
- Communicate with all Stakeholders on test progress and issues.
- Control data access.
- Analyze data and provide test reports.

Questions & Answer Session

15 minute break



Karen Burke

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Federal Security Director, State of Nevada

Karen R. Burke serves as the Federal Security Director (FSD) at Las Vegas Harry Reid International Airport (LAS). Ms. Burke previously served as the Federal Security Director (FSD) at Washington Dulles International Airport (IAD), and Reagan National Airport (DCA). During her career with TSA, she also served as the Regional Director for Region 3, Region 4 and Region 5. Ms. Burke came to the Transportation Security Administration (TSA) in November 2002 as a Regional Director with the responsibility to “stand-up” 114 airports across the country with government resources and employees. Her vision is to focus on collaboration across agencies, stakeholders, and transportation modes to bring greater effectiveness in creating an effective transportation security network.



Christina Peach

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Branch Manager of DMx, ITF

Christina Peach has worked for TSA since June of 2008. She started as a Transportation Security Officer and is now the Branch Manager of the Demonstration, Management and Execution (DMx) Branch of the TSA Innovation Task Force. The DMx branch utilizes an extensive demonstration lifecycle in order to assess technologies with the intent of further informing requirements to address TSA capability gaps in the near term as well as future state. Ms. Peach is currently serving as the Acting Division Director for ITF and oversees all operations related to the innovation process including TSA technology gap identification, soliciting solution identification, collaboration with private and public sector, and the demonstration lifecycle.





Steven Parker

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Chief Innovation Officer, SP&I

Mr. Parker is the Chief Innovation Officer (CInO) for TSA. Steven and his team are charged with enhancing TSA's innovation capacity by connecting, enabling and incorporating innovative technology and process ideas from passengers, employees, and transportation industry partners, throughout TSA and the greater transportation security ecosystem. Steven cultivates high level long-term relationships and innovative ideas that provide value to elected officials, non-elected officials, business leaders, community leaders and other stakeholders.



Matt Gilkeson

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Division Director, ITF

Mr. Gilkeson is the Division Director for the Innovation Task Force Division (ITF) within Requirements and Capabilities Analysis (RCA) at TSA. As Division Director, Mr. Gilkeson fosters innovation by integrating key stakeholders in the identification, demonstration, and characterization of emerging solutions in an effort to increase security effectiveness and improve passenger experience. The ITF is composed of a diverse headquarters staff of program managers who integrate operations activities, develop strategic and tactical plans, and demonstrate innovative private-sector solutions that ensure the freedom of movement throughout the nation's transportation system.



Questions & Answer Session

Next Steps



September

27

Deadline to submit any *questions* to IDEA@tsa.dhs.gov

October

17

Deadline to submit *solutions* for ITF's BAA Window 2. Please submit your *White Paper, ROM, and data sheet* to IDEA@tsa.dhs.gov



Scan the QR Code to link to the official SAM.gov posting



ITF Industry Day: IDEA BAA – Window 2

**Cohort B submissions due
October 17th, 2023**

