NAS Enterprise Architecture

Business & Technology Roadmaps v8.1

BASELINE

December 2025

Business & Technology Roadmaps Overview

What are the Business & Technology Roadmaps?

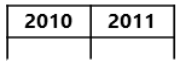
- The Business & Technology (B&T) Roadmaps are a collection of multi-year strategic roadmaps that depict enterprise-level changes to NAS internal operations, business processes, and functions that will lead to improved efficiencies, cost savings, and other benefits to the FAA. These NAS-focused improvements establish a life cycle approach that ensures the foundation of the NAS continues to modernize its technology and processes in support of future operational and technological improvements.
- The B&T Roadmaps are grouped by FAA Service and Capability and include the following elements that together show the evolution of the FAA Service:
  - **Current Business or Technology Environments (CBTEs)** describe the current state baseline of FAA service delivery
  - **B&T Improvements (BTIs)** are strategic or technological changes to the NAS intended to enhance FAA Service delivery through the realization of internal benefits (e.g. cost effectiveness)
  - **Current Business or Technology (CBTs)** are completed BTIs that show the capability solutions that are available and demonstrate evolution of the FAA service
  - **Support Activities (SAs)** are initiatives that inform the development or identification of new capabilities, policies, and procedures

Guidelines for Understanding the Roadmaps

- The Business & Technology Improvement (BTI) bars represent the date range for which an improvement is beginning implementation to when it is expected to be initially (e.g., at the first location) available to users. For BTIs that are expected to be made operationally available incrementally, the end date represents the first instance of the capability's operational availability. Expanded deployment of the capability beyond the first instance is captured on the Infrastructure Roadmaps.
- Each Business & Technology Roadmap diagram is segmented by Capabilities, which are depicted by alternating gray and white backgrounds as necessary.

Business & Technology Roadmaps Legend

Roadmap Shape Information



Timeline (calendar year)

Current Business & Technology Environment (CBTE) Arrow indicates sustainment

Current Business & Technology (CBT) Triangle indicates full operational availability

Date initial operational availability achieved

Business & Technology Improvement (BTI) Fill color indicates status

Business & Technology Improvements (BTIs) by Status

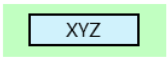
BTI with ***Initial Operational Availability*** status

BTI with ***Concept Exploration and Maturation*** status

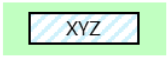
BTI with ***Development*** status

BTI with ***Planned*** status

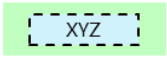
Support Activities (SAs)



Support Activity which is **primarily tracked on B&T Roadmaps**



Support Activity which is **primarily tracked on another NAS EA Roadmap**



Planned Support Activity

External Data Element being researched or developed by a NextGen partner agency/entity

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Business & Technology Status Overview

BTI Status Definitions

- BTI status is determined by the most mature capability solution, until the most mature solution achieves Initial Operational Availability (IOA) status.
- Once the most mature capability solution achieves IOA, the BTI will remain IOA until all capability solutions are complete, and then the BTI will transition to a Current Business & Technology (CBT).

BTI Status	Definition
Planned	No funding – either internally or externally (e.g. NASA or other partner agency) – has been allocated. The BTI represents a potential future concept; initial development may have begun and this is used as a placeholder to assist in further refining of solution on interdependency relationships.
Concept Exploration & Maturation	Work is underway and funded to define the concept, develop acquisition artifacts, mitigate risks, and determine the options for the implementation strategy. Solutions under development to deliver this operational change are currently in either concept and requirement definition or investment analysis up until a final investment decision is achieved (or a comparable agreement on the scope/implementation).
Development	The most mature solutions to deliver the operational change are under development. There may be additional solutions needed to fully deliver this BTI which are less mature.
Initial Operational Availability	At least one of the capability solutions needed to deliver the operational change has been achieved or approved for use at an initial site. IOA occurs after demonstration of initial operational capability at the key test site(s). A BTI remains in IOA until all capability solutions have achieved operational use.
Current Business & Technology Environment (CBTE)	The current operational state of FAA service delivery to NAS users.
Current Business & Technology (CBT)	All capability solutions needed to fully deliver the BTI are complete.

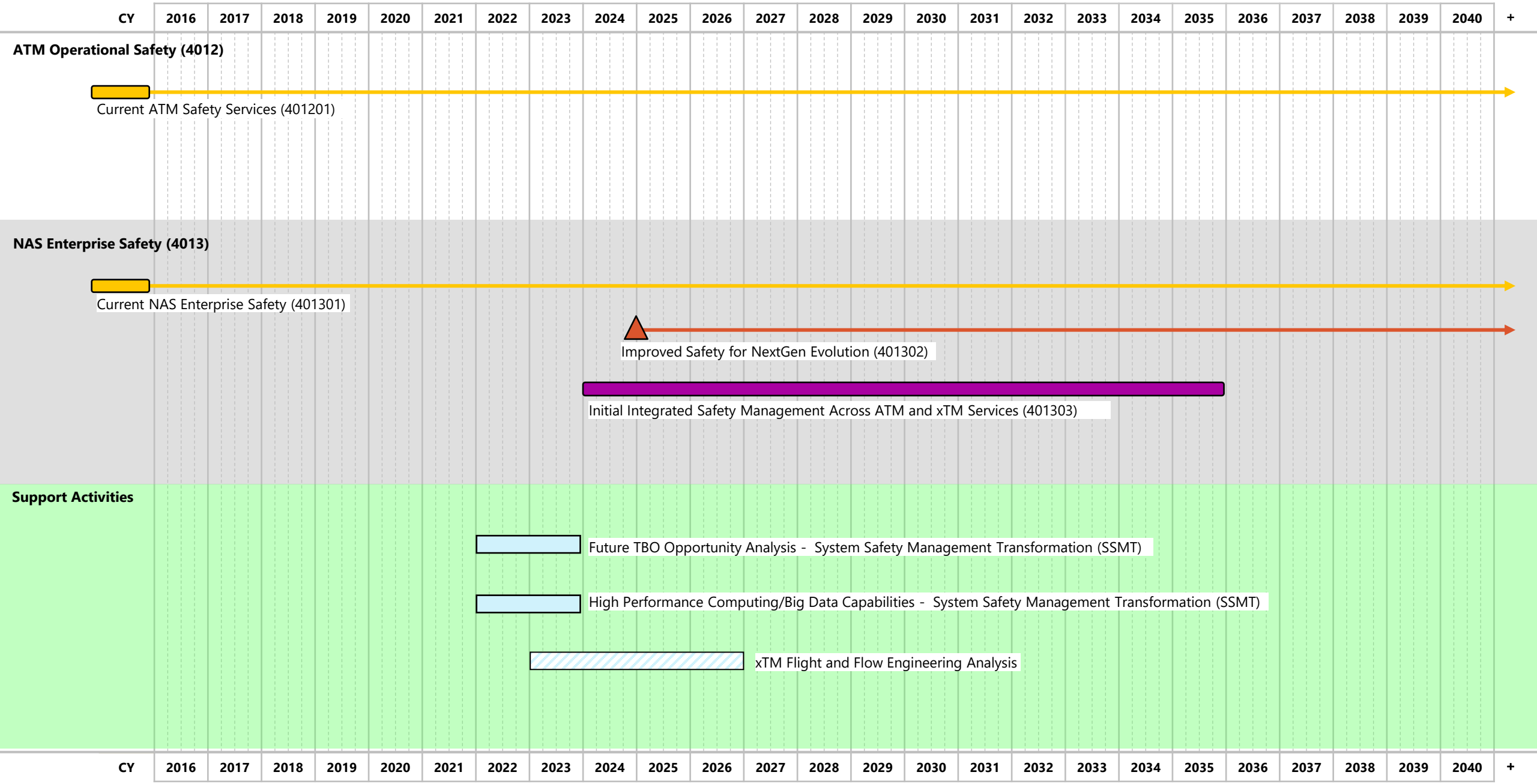
Service Group 4: Safety

Safety provides for the sum total of resources and activities (people, organizations, policies, procedures, time spans, milestones, etc.) devoted to the management of safety at any point during a system's life cycle (i.e. from concept through, design, implementation and operation) and ensures the safety, effectiveness and quality of Aviation System Standards programs through the development and oversight of organizational safety and quality assurance policies and procedures and implementation of a Safety Management System. Key components of the Aviation System Standards integrated safety system include Flight Safety, Environmental, Occupational Safety and Health, Safety Management System, and Internal Evaluation Programs. [ATMCP-WG/WHL/8-SD/8, para 3.1.17]

Service 401:
Aviation Safety

Aviation Safety is conducted to ensure the safe and efficient operation of the NAS. Aviation Safety involved both ATO system assessments and broader enterprise level system of system assessments. Safety Services for Air Traffic Management apply Safety Risk Management (SRM) for new or revised systems or services and Safety Assurance (SA) on implemented air traffic management operations. SRM determines the need for, and adequacy of, new or revised mitigations based on the assessment of acceptable risk. Validation and Verification ensures that requirements, including those designed to mitigate risk, are met. Safety assurance evaluates the continued effectiveness of implemented risk control strategies such as the identification of new hazards. Enterprise Safety applies SRM to the NAS as a whole and endeavors to provide a broader context of NextGen changes, ensuring no unmanaged risk exists in the NAS.

Aviation Safety (1 of 1)



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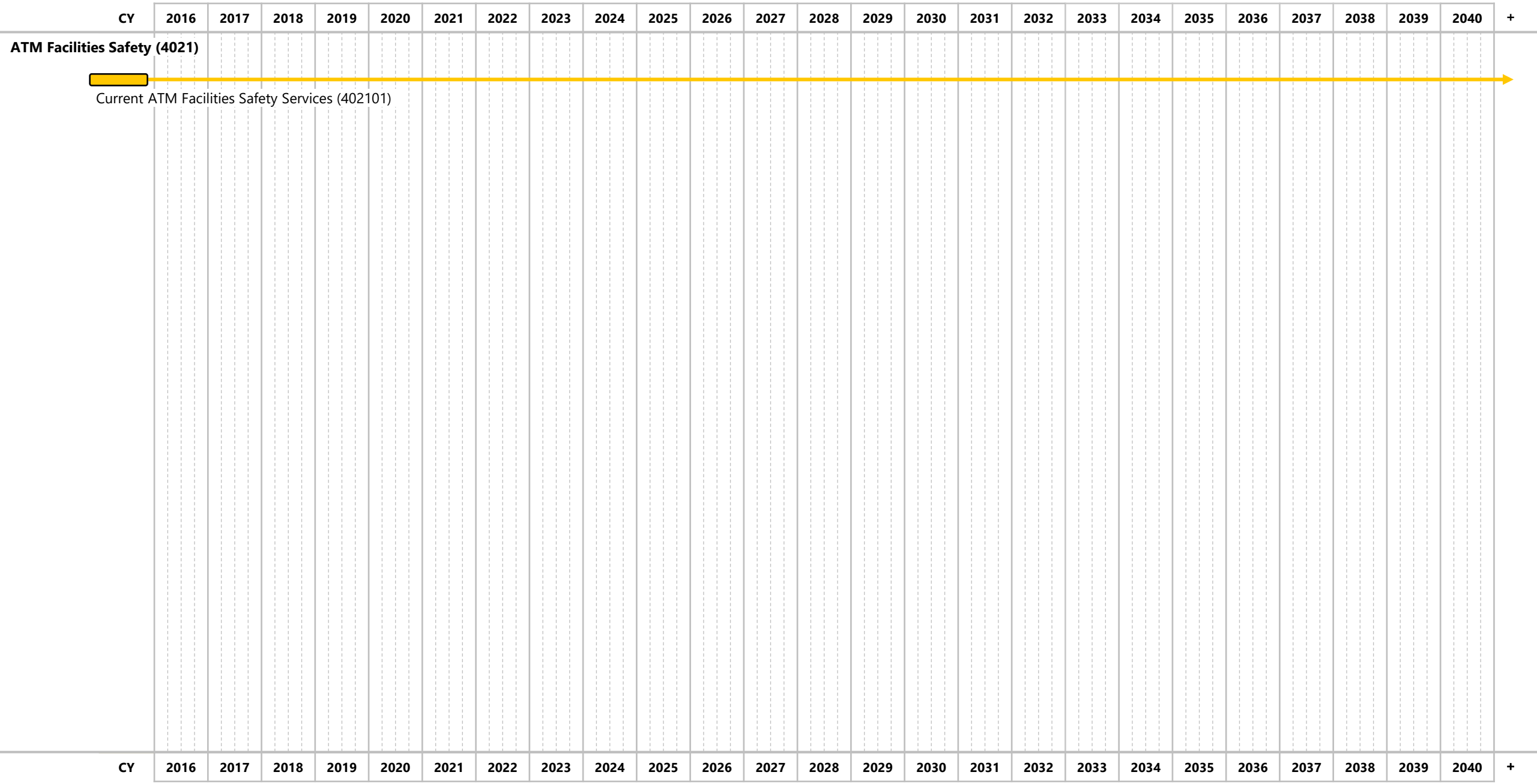
Service 402:
Facilities Safety

Facilities Safety applies system safety techniques to a facility from its initial design through its demolition. Facilities are major subsystems providing safety risks to operational and maintenance staff. By implementing processes similar to those used in airborne and ground systems, control of these risks can be maintained. Some aspects that this Service addresses include structural systems, Heating, Ventilation, and Air-Conditioning (HVAC) system, electrical systems, hydraulic systems, pressure and pneumatic systems, fire protection systems, water treatment systems, equipment and material handling, and normal operations (e.g., parking garage) and unique operational activities (e.g., chemical laboratories).

Facilities Safety (1 of 1)



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