



National Railroad Passenger Corporation (Amtrak)
Statement of Work (SOW) for Data and Analytics Strategy

October 30, 2023

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1. INTRODUCTION and OBJECTIVES

1.1. About Amtrak

The National Railroad Passenger Corporation, Amtrak, is a corporation striving to deliver a high quality, safe, on-time, and environmentally efficient rail passenger service that exceeds customer expectations. With 21,000 route miles in 46 states, the District of Columbia and three Canadian provinces, Amtrak operates more than 300 trains each day — at speeds up to 150 mph — to more than 500 destinations. Amtrak is the operator of choice for state-supported corridor services in 17 states and for four commuter rail agencies.

1.2. About Amtrak Information Technology (IT)

At Amtrak, the information technology is both a strategic enabler of our business and a catalyst for innovation. The IT organization, led by Christian Zacariassen, delivers, operates, and maintains technology capabilities across all lines of business to ensure safety and security, provide a seamless customer experience, modernize fleet and train operations, empower a diverse, geographically dispersed yet connected workforce, support mega construction and infrastructure projects, and drive efficiency and financial excellence.

Amtrak IT's vision is "To be a world-class IT team that proactively delivers secure, cost-effective business solutions that exceed the expectations of our business and customers." To help us reach the vision, we have developed a Technology Strategy that serves as the guidepost to inform how we align with the business vision and priorities, rank and deliver current strategic technology initiatives, and build an innovative new generation of Amtrak products and services.

Amtrak Technology Strategy

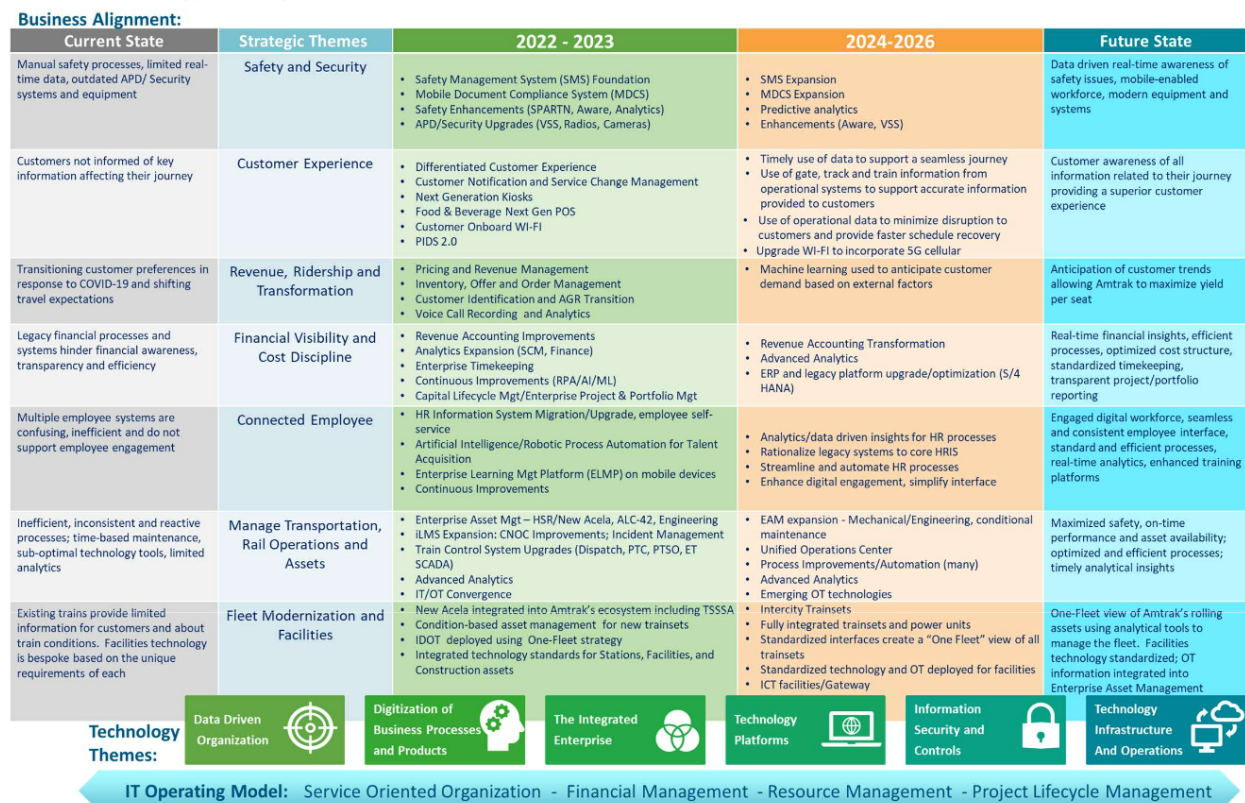


Figure 1 – Technology Strategy

At the core of IT's operating model is the Service Oriented Organization (SOO) structure. Aligned with Amtrak and IT's strategic priorities, the SOO drives accountability and business partnerships, shortens time to market, and



enables flexibility and scale. A pivotal role within the SOO model is the IT Service Owner, who is responsible for a specific end-to-end technology service and value delivery, business relationship management, technology roadmap aligned with business objectives, service maturity, and performance metrics, among others.

To augment employees and traditional procurement vehicles, IT contracts for a variety of products and services solicited through competitive and qualified bidding processes, such as master service agreements, fixed bid development services (packetized development), Center of Excellence (CoE), and subscription-based services.

Master Services Agreement (MSA) – A contract entered into by Amtrak and its vendor(s) that outlines terms & conditions to govern future task-orders or releases against the agreement. The estimated annual spend is \$50.0M (excluding staff augmentation contractors).

Managed Services – IT has engaged multiple managed services vendors who provide an end-to-end, managed technology service with contractual SLAs, typically on a fixed price basis. These services often include engineering, capital deployment, and ongoing operations services. The responsibility for managing these vendors falls to the IT Service Owner who is accountable for that specific technology platform. Examples include hosted Data Center Operations, Network services, IT Service Desk, 24x7 Incident Management & IT Operations Center, On-board Wi-fi operations, and others.

Fixed Bid Development Services – Fixed Bid Development Services, also referred to as packetized development, support well-defined development activities with clear service level agreements (SLAs) and pre-defined milestones. The estimated annual spend is currently \$14.0M but expected to increase in future years with new IT workload.

CoE – The CoE function supports established technologies across all platforms. With a focus on Operations & Maintenance (O&M), the CoE structure is a critical component of Amtrak's overall Enterprise IT Support Model. The CoE follows Amtrak's ITIL based service management processes for Incident, Problem, and Change Management, utilizes Amtrak standard tools for all IT Service Management (ITSM) activities, and provides Tier 2 application support and minor enhancements. The total O&M contract value over a 3-year base period is \$41.0M with potential extension. In addition, the CoE provides for short-term "burst" capacity resources to support Capital projects.

Cloud-Based Services – We continue to drive cloud transformation to improve IT operational effectiveness, strengthen cybersecurity posture, reduce operational costs, and improve the ROI of technology investments. A key tenet of the cloud strategy is to utilize cloud-based services such as Infrastructure as a Service (IaaS), Platform as a Service (PaaS), Software as a Service (SaaS), Infrastructure as Code (IaC), and Dev/Sec/Ops to deliver capabilities that meet Amtrak's needs. Cloud based computing capabilities are also a critical component of our IT Disaster Recovery & Resiliency Strategy.

1.3. Background

The passage of the bipartisan Infrastructure Investment and Jobs Act (IIJA) provides unprecedented levels of investment for intercity passenger rail. The IIJA includes one-time funding of \$66 billion in advance appropriations for intercity passenger and freight rail over five years, and reauthorization of federal rail policies with updates to the Fixing America's Surface Transportation (FAST) Act. The IIJA funding supplements the annual appropriations that Amtrak receives each fiscal year.

As Amtrak executes under the IIJA framework, data and analytics will be a key competitive differentiator and an integral part of the project and program delivery that lays the groundwork for sustained success.

With the IIJA funding, we expect a significant increase in information technology investments. Our current data infrastructure is fragmented, which limits our ability to use our data to its full potential. We want to use data and analytics to generate timely, relevant and trusted insights to support informed decision making across all business lines. We would also like to use Artificial Intelligence and Machine Learning to automate manual processes and use advanced analytics and predictive capabilities to support customer experience, operational excellence and employee engagement. We want to create a data informed culture where everyone has access to the data they need to make informed decisions across all business lines and corporate functions.



1.4. Objectives

The objectives for this work:

- Develop shared understanding of the business goals, challenges and opportunities to ensure that the Data, Analytics and AI strategy aligns with the Amtrak's business vision and priorities across Amtrak business lines
- Understand the current state of the data analytics and AI capabilities
- Establish the desired future state of Amtrak's data, analytics and AI capabilities needed to support business vision
- Identify strategic opportunities for both improving current data operations and new data, analytics and AI initiatives to support the Amtrak's strategic business goals and drive growth and innovation
- Recommend approaches to modernizing and scaling data analytics and AI capabilities needed to support informed insights across people process and technology areas
- Develop a roadmap that includes objectives, implementation strategies, and performance metrics

The Contractor shall commence work upon Task Order issuance and complete all work **within five (5) months** from the contract award date. Any changes in the period of performance requirements are at the discretion of the project team.

2. DESIRED DELIVERABLES

2.1. Desired Capabilities/Deliverables

To achieve the above-stated work, the Contractor shall perform the following set of tasks and produce the required deliverables:

1) Host Kick-Off

- a) Contractor shall present their approach based on the submitted proposal, including desired outcomes, key deliverables, success measures and timeframes no later than 5 business days following contract start, explore the work with the strategy team and gain additional insight on the project
- b) Draft Work Plan to be delivered within 10 business days after contract start

Deliverables: Proposed Approach

Description: Attendees shall include the Contractor, the COR, and other representatives that the Amtrak deems necessary. The meeting can be held virtually

2) Review the Work Plan

- a) Recommend a strategy development methodology and tools, including surveys, interviews, group sessions, etc.
- b) Develop a draft work plan for meetings and communications, including key milestones, deliverables and dates throughout the strategy development process
- c) Design meetings, prepare agendas and needed materials
- d) Conduct meetings with Amtrak strategy team to gather feedback

Deliverables: Work Plan

Description: The general strategy development plan shall list major actions and milestones and the timeline. The communication section of the plan should identify:

- e) Key messages



- f) Key dates throughout the development process
- g) Recommended vehicles for communication
- h) Key persons or groups for communication

3) Fact Finding and Analysis

- a) Review and validate understanding of the existing current state artifacts with the strategy team
- b) Prepare for and facilitate meetings with the strategy team members, advisers, and other key stakeholders to identify challenges and opportunities and strategic themes
- c) Identify key trends and forces that are shaping the industry and the business
- d) Capture input and distribute insights from the meetings
- e) Gather feedback on the draft themes from participants and finalize the current state analysis report

Deliverables: Current state analysis highlighting pain points and opportunities from each business line and common themes throughout the organization

Description: Conduct up to 20 facilitated sessions over a 25 business days period with strategy team members, advisers, and other key business stakeholders. Sessions may be conducted through a tiered iterative approach: grouped divisions, specific focus groups, and the strategy team.

4) Vision, Guiding Principles, Goals and Objectives

- a) Prepare for and facilitate workgroup meetings with the strategy team members, advisers, and other key stakeholders to identify future scenarios, potential business use cases, guiding principles and success factors
- b) Document up to four key top use cases for each business line
- c) Capture input and distribute insights from the meetings
- d) Review the draft with the workgroup members to gather feedback and finalize the future state

Deliverables: Shared data, analytics and AI vision, guiding principles, goals and objectives and key business cases

Description: Conduct up to 20 facilitated sessions over a 30 business days period. Workgroup members may consist of the strategy team members, advisers, and other key business stakeholders. A key outcome of Task 4 is reaching a shared understanding and general consensus among all stakeholders on key themes, vision, guiding principles, goal statements and objectives.

5) Roadmap, Measures, and Metrics

- a) Prepare for and facilitate sessions over a one-month period to identify high priority business use cases and potential initiatives to support business vision
- b) Facilitate the discussion with strategy team members, advisers, and other key business stakeholders to develop a roadmap across people, process and technology areas
- c) Develop key measures, and metrics for monitoring roadmap execution
- d) Gather feedback from the strategy team members and advisers and finalize the roadmap

Deliverables: 3-5 year Roadmap of data, analytics and AI initiatives, metrics and monitoring process to measure success

Description: Conduct up to 6 facilitated sessions over a 15 business day period. Workgroup members may consist of the strategy team members, advisers, and other key business stakeholders. A key outcome of Task 5 is agreed upon roadmap, metrics and monitoring/reporting process.

6) Finalize the Strategy Document

- a) Review and finalize the strategy document
- b) Provide up to 16 hours of editing to the final strategy draft in up to three iterations



- c) Strategy Communication component
 - a. Develop executive summary presentation of the strategy for the Amtrak's Executive Committee
 - b. Develop communications plan and communication materials for individual business units
 - c. Make change management recommendations
 - d. Debrief strategy team and after-action learning

Deliverables: Final data, analytics and AI strategy, roadmap and communication plan and materials

Description: up to 2 weeks to polish the final strategy and roadmap and produce communication plan and materials. Communication materials include, but are not limited to, summary presentation, presentation for business divisions and one-page flyer.

3. ASSUMPTIONS AND CONSTRAINTS

3.1. Assumptions

The following assumptions are made for this initiative.

- IT leadership team will have overall responsibility and authority for driving key decisions and approval of deliverables.
- Amtrak will provide reasonable and timely access to relevant key stakeholders and information.
- Assessment for the Information Security function is out of scope; however alignment and integration of the Information Security function across services is in scope.
- The bidder will provide timely and regular status updates on the engagement.
- The bidder will comply with all Amtrak policies, standards, and guidelines for project documentation.

3.2. Constraints

The following constraints exist for this initiative.

- Certain Amtrak key stakeholders may have limited availability due to this engagement's accelerated timeline expectation and other competing priorities.

4. APPENDIX

Amtrak's 15 Year Vision

- ✓ Add service to 160 new communities, large and small, while retaining the existing Amtrak network serving over 525 locations.
- ✓ Provide intercity passenger rail service to the 50 largest metropolitan areas (by population).
- ✓ Serve 47 of the 48 contiguous states, expanding corridor passenger rail service in 20 states and bringing new corridor passenger rail service to 16 states.
- ✓ Add 39 new routes, and enhance 25 routes.
- ✓ Introduce new stations in over half of U.S. states.
- ✓ Expand or improve rail service for 20 million more riders annually—which would double the amount that the state-supported routes carried in fiscal year (FY) 2019.*
- ✓ Provide \$800 million in total Amtrak revenue growth versus FY 2019.

*Amtrak's fiscal year runs from September through October.

AMTRAK BLUEPRINT: THE NEXT 5 YEARS – FY 2019-20

OUR VISION

VISION – what are our winning aspirations?

We will double Amtrak ridership by 2040 by becoming the preferred mode of intercity travel within the corridors connecting America's major metropolitan areas and support the growth of multimodal travel choices by providing infrastructure, services and capabilities to passenger railroads nationwide.

We will deliver industry-leading safety and operational performance and consistent and courteous customer service.

MISSION - who are we, how do we work toward our vision; and what makes us unique?

Amtrak is the nation's intercity passenger rail operator and infrastructure provider. We provide safe, efficient, and effective intercity passenger rail mobility consisting of friendly high-quality service that is trip-time competitive with other intercity travel options.

CORE VALUES – what are the guiding principles that shape our work and how we operate?

- Lead the industry in safety, error-free operations and security centered on a Just Culture.
- Relentlessly committed to customer service.
- Act as a responsible, effective stewards of taxpayer investments.
- Foster open and honest communication that embraces and encourages change, innovation and employee involvement in a meritocracy.
- Treat one another respectfully and recognize their colleagues' contributions.
- Operate with superior environmental performance and incorporate sustainability into decisions and practices.
- Well-trained and empowered front-line employees with the trust and authority to address the needs of our customers quickly and generously.
- A strong safety program that delivers continual improvement.
- A modern fleet that is efficient, comfortable, and environmentally-sound.
- Infrastructure and facility conditions that are in a state of good repair to support Amtrak and partner service expectations.
- A recognizable, respected and consistent national brand.
- A constant use of data and metrics to manage and improve the business.
- Efficient and safe business operations and project execution that is on-time, on-budget, and meets specifications.
- Consistent customer service standards and training.
- Cutting-edge mobile technology for customers and front-line employees.
- Technological innovations that enhance safety, improve operations and service while reducing costs.

CAPABILITIES – what needs to be in place for our success?

MANAGEMENT SYSTEMS – what must be instituted for us to achieve our vision?

RUNNING A GREAT RAILROAD. We must deliver industry-leading safety, operational and project delivery performance by:

- Maintain a strong safety program and Safety Management System.
- Have no train accidents and reduce passenger and employee injuries.
- Operate a 100% PTC or PTC-equivalent network.
- Provide customers with a safe, modern, reliable, and well-maintained fleet.
- Serve markets with on-time service that is trip-time competitive with car, bus and air travel.

OUR CORE STRATEGIES



GROWING THE NETWORK. We must create and grow a comprehensive intercity passenger rail network for the nation that is structurally sustainable, drives superior customer loyalty, and generates positive cash from operations on a net basis by:

WINNING TOGETHER. We can sustain a competitive advantage by building an employee-friendly company that is diverse, collaborative, accountable, and results-oriented. Our railroad is made up of valued and dedicated PEOPLE and we can only win by working as PARTNERS.

EARNING CUSTOMER PREFERENCE. We must deliver a superior product characterized by safe, on-time operations, and modern, clean trains and stations by:

FINANCIAL STEWARDSHIP & SUSTAINABILITY We achieve consistent, positive adjusted operating earnings while being responsible stewards of public funds. This means:

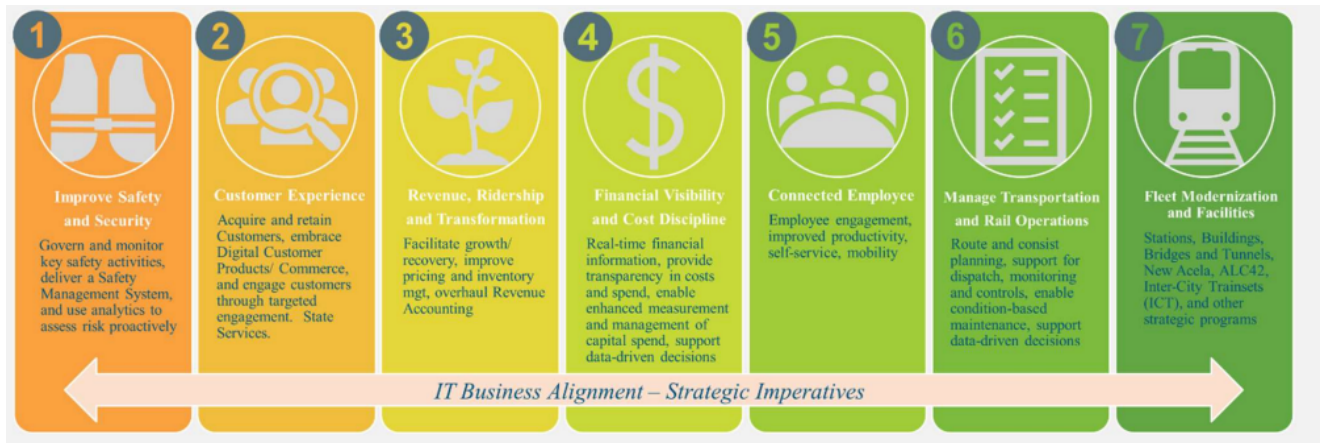
LONG-TERM METRICS - what will we do to realize our vision over the next five years?

- Produce Initial Terminal Performance over 95%
- Meeting On-Time Performance targets:
 - 85% on the Northeast Corridor.
 - 82% on State Supported routes
 - 50% on Long Distance routes.
- Achieve high levels of asset utilization.
- Achieve best-in-class distribution costs.
- Maximize customer use of Amtrak's website, mobile and other direct channels.
- Maximize the number of passenger trips per public dollar invested.
- Grow services nationwide in corridors of ~400 miles or less that connect major metropolitan markets by offering convenient schedules, attractive amenities, and competitive trip times that are preferable to highway and air alternatives.
- Connect the nation's major regions with efficient overnight services that offer a unique travel experience and continue to serve our current communities with appropriate services and frequencies.
- Expand State Supported, commuter, and intermodal partnerships and strategic alliances that increase our network utility.
- Grow our Northeast Corridor services through strong OTP, increased capacity and service in new markets.
- Improve frequencies and schedules to match customer demand.
- Develop leaders who drive performance and accountability while fostering a positive, flexible and open work environment that encourages change, innovation and employee growth.
- Grow a Just Culture built on honesty, forthrightness, accountability and accommodation, and personal initiative and common cause for continuous improvement in our safe and customer-focused delivery of transportation services and all other aspects of our business and operations.
- Increase productivity and efficiency while building cooperation and partnership with our employees and their affinity organizations.
- Recruit and retain a customer-focused, high-performance workforce reflective of the nation's diversity.
- Use a performance-based incentive compensation system that is tied to specific and quantifiable goals.
- Solicit regular feedback from our employees to make improvements to the company.
- Set our collective bargaining agreements promptly and fairly to provide good, competitively compensated professional careers for our employees.
- Offer friendly, courteous, and consistent customer service that goes the extra mile, especially when things do not go right for our customers.
- Provide the best Wi-Fi connectivity in the intercity travel market.
- Operate modern, comfortable, and well-maintained train car interiors with clean lavatories.
- Offer contemporary amenities, food, and beverage choices on board and in stations.
- Operate bright, clean, and easy-to-navigate stations with good intermodal connections.
- Use cutting-edge customer technology that provides complete capability to manage all Amtrak retail transactions with customers, ranging from buying tickets and meals to processing refunds and providing real-time train status.
- Create clearly differentiated passenger experiences for premium customers.
- Generate positive operating results.
- Exercise vigilant cost controls to drive productivity gains above inflation at 3% or better growth annually.
- Maximize revenue and ridership by producing growth of 3% per year.
- Create a sustainable National Network with fewer losses and greater utility.
- Maximize non-transportation revenue opportunities.
- Reduce energy and water costs, increasing fleet and facility efficiency, promoting corporate sustainability goals across all activities and departments.

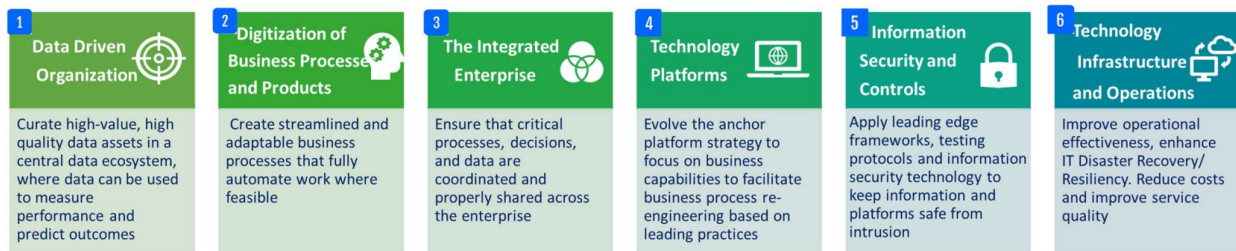
OUR KEY METRICS – FY2019-FY2023

- Incur no NTSB-defined incidents or accidents.
- Achieve industry leading employee and customer injury performance.
- Increase load factors by 1% annually.
- Achieve annual positive adjusted operating earnings by FY2021.
- Achieve annual ITP and OTP targets.
- Reach CSI scores that exceed 85%.
- Deliver the annual capital plan on-time, on-budget and within scope.
- Maintain a strong balance sheet with net debt levels below \$1 billion.
- Achieve annual productivity improvements of 3% per year.

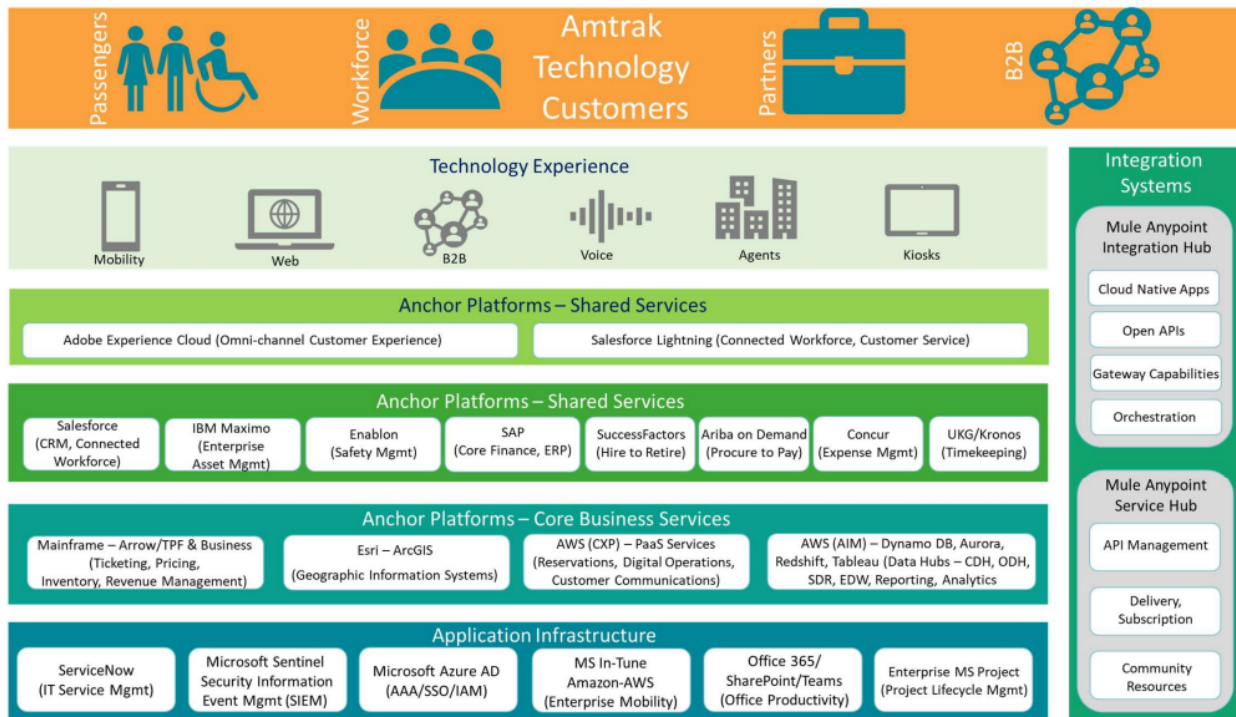
The IT Business Alignment



FY 2023 Amtrak Technology Themes



Amtrak Current Technology Platforms



IT Service Oriented Organization Model. See Appendix – Figures 5 & 6 for additional detail.

IT Service Oriented Organization (SOO) Model – FY 2022

