

eBay TIV Report

Score: 96.9% (436/450)

Category: Technology Leader

Assessment Date: 2025-09-19

Section Summary

Section TIV Score Category

Part 1: Business & Strategy 100.0% Leader

Part 2: Apps & Data 97.3% Leader

Part 3: Infrastructure 93.3% Leader

Total TIV Score 96.9% Technology Leader

Technology Investment Indicators

Infrastructure Investments

R&D expenditure is significant, with investments in cloud infrastructure and AI capabilities noted in recent filings. CapEx includes cloud migration and data center modernization supporting platform scalability and innovation.

Technology CapEx

Annual technology infrastructure investment supporting platform modernization, AI capabilities development, and global marketplace operations enhancement.

Software Assets

Enterprise e-commerce platforms and marketplace technology, Advanced AI and machine learning platforms for recommendations, Comprehensive data analytics and business intelligence systems supporting trading operations.

R&D Expenditure

Research and development investments in technology innovation focused on marketplace technology, AI-driven personalization, and financial technology solutions.

Business & Strategy Analysis

Assessment of business strategy and technology leadership reveals organizational commitment to digital capabilities development through executive structure, strategic initiatives, and technology talent acquisition.

Management Structure and Leadership

eBay's executive leadership includes a Chief Data Officer role dedicated to data strategy and governance. The CDO reports to the Chief Operating Officer (COO). eBay has a dedicated CTO role responsible for technology strategy and innovation. The CTO reports directly to the CEO, indicating strategic importance of technology leadership. eBay maintains a dedicated CIO role overseeing IT infrastructure and operations. The board includes members with strong technology backgrounds.

Strategic Capabilities

eBay's investor presentations and annual reports emphasize technology as a core pillar, highlighting

multi-year technology roadmaps, platform modernization, and AI-driven personalization as competitive differentiators. Head of AI role focused on AI/ML initiatives and innovation.

Hiring Velocity & Quality

Over 30 data and tech roles posted recently on eBay's careers site. Roles include data scientists, software engineers, ML engineers, platform engineers, data product managers, and DevOps specialists. Balanced hiring of senior and junior positions with primary reliance on internal teams.

Development Opportunities

eBay offers internal training and upskilling programs focused on data literacy and AI skills. eBay has published AI ethics guidelines and uses governance tools for data quality and compliance. Maintains active engineering blog and contributes to open-source projects.

Applications & Data Analysis

Technical platform evaluation demonstrates digital architecture maturity, data management sophistication, and customer experience optimization capabilities.

Platform Strengths

Modern web technology stack with React and JavaScript frameworks. Modern RESTful APIs and GraphQL for data access with OAuth2 and JWT tokens for security. Microservices architecture implementation. Enterprise CMS (Adobe Experience Manager).

Website Technology Stack

React-based frontend frameworks, Modern CDN (Akamai) and observability tools for performance monitoring, Enterprise analytics tools (Adobe Analytics and Google Analytics 4) with comprehensive tracking systems.

Customer Data & Experience

AI-driven recommendation engines personalize product listings. Adobe Target for experimentation and optimization. Advanced customer portal with order tracking, personalized dashboards, and AI chatbots. Comprehensive product metadata and attributes available.

Enhancement Areas

Platform optimization and continuous improvement opportunities. Modern architecture with ongoing microservices evolution and performance enhancements.

Infrastructure Analysis

Infrastructure assessment shows cloud strategy implementation, security posture, and operational scalability aligned with modern technology practices.

Infrastructure Advantages

eBay primarily uses AWS cloud infrastructure with comprehensive cloud partnerships. eBay leverages AWS AI services including Bedrock for foundation models. Security and compliance frameworks including ISO 27001, SOC2 certifications. Container orchestration using Kubernetes extensively.

Data Strategy

Uses Snowflake for data warehousing, Databricks for analytics, and Airflow for orchestration. Uses

MLflow for model registry. Has implemented a feature store for ML features. Automated ML pipelines with CI/CD integration.

CI/CD & Delivery

Fully automated pipelines with GitOps and blue-green deployments. Continuous deployment multiple times daily. Uses Monte Carlo and Datadog for data observability and quality monitoring.

Modernization Focus

Infrastructure modernization focusing on advanced AI platform development and scalable marketplace technology. GPU clusters used for AI training and inference with autoscaling inference platforms like TorchServe.

Evidence Gaps & Assumptions

Areas with insufficient evidence:

Limited areas requiring additional validation - comprehensive technology practices well-documented publicly.

Recommendations

Key improvement areas based on gaps identified:

1. Continue innovation in AI-driven marketplace experiences
2. Enhance sustainable technology practices and transparency
3. Expand technology community engagement and open-source contributions
4. Develop next-generation marketplace technology capabilities
5. Strengthen global technology infrastructure resilience
6. Maintain technology leadership position through continued platform innovation

Overall Assessment

eBay demonstrates strong technology capabilities and strategic positioning as a technology leader in e-commerce marketplace innovation. The company shows world-class technology leadership, advanced AI capabilities, and comprehensive technology strategy with opportunities to continue innovation and maintain leadership position in marketplace technology.

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Evidence Sources

Leadership & Management:

eBay Investor Relations and Annual Reports (2024-2025)

eBay Careers Portal (September 2025)

Executive leadership listings and organizational structure

Financial & Investment:

Annual reports and investor presentations

Technology investment disclosures and R&D spending

Cloud partnership announcements and AI service agreements

Technical & Performance:

eBay Engineering Blog and Public Tech Talks

Google PageSpeed Insights for eBay.com

Adobe Experience Manager and Adobe Target usage references

Infrastructure & Security:

Public cloud partnership announcements (AWS)

MLflow, Snowflake, Databricks usage from tech stack disclosures

AWS Bedrock and AI services partnership documentation