

# Execution Report for 1.1

## Project Scope, Goals, and Success Metrics Definition

This report outlines the foundational elements for the critical migration of our e-commerce platform to a cloud-native microservices architecture. It consolidates the initial understanding of the project's objectives, identifies key stakeholders, and defines the scope and measurable success criteria.

### *1. Project Understanding and Context*

The core challenge is to migrate our existing large-scale, monolithic e-commerce platform to a modern cloud-native microservices architecture. This platform currently supports millions of national users and processes thousands of transactions per minute, but its tightly coupled nature has become a significant impediment to business growth. It presents challenges in terms of scalability, maintenance costs, and the speed of new feature introduction.

The overarching aim of this migration is to significantly enhance system scalability and resilience, dramatically accelerate development cycles, and achieve a reduction in operational costs. This transformation must be executed without any user-facing downtime (targeting 99.99% uptime) and absolutely no data loss. The project is constrained by a \$5 million budget and a 2-year timeline, requiring meticulous coordination across dozens of engineering, product, and operations teams.

### *2. Identified Key Stakeholders*

A comprehensive list of key internal and external stakeholders has been compiled to ensure all perspectives are considered and alignment is achieved throughout the project lifecycle.

#### **Internal Stakeholders:**

- \* **Executive Leadership:** Responsible for strategic direction, funding, and overall organizational alignment (e.g., CEO, CTO, CFO, COO).

- \* **Project Sponsor:** The executive driving the project, providing high-level oversight and removing organizational impediments.

- \* **Engineering Department:**

- \* Lead Architects: For system design, technology choices, and architectural integrity.

- \* Technical Leads / Team Leads: For guiding development teams.

- \* Development Teams: The teams building and testing the new microservices.

- \* Operations Teams / Site Reliability Engineers (SREs): For system stability, deployment, monitoring, and incident response.

- \* Quality Assurance (QA) / Testing Teams: For ensuring quality, performance, and security.

- \* DevOps Engineers: For establishing and maintaining CI/CD pipelines and automation.

**\* Product Management:**

\* Product Owners: Defining features, prioritizing backlogs, and ensuring business value.

\* Business Analysts: Eliciting and documenting detailed requirements.

\* **Finance Department:** For budget oversight, cost analysis, and return on investment (ROI) tracking.

\* **Legal & Compliance Department:** For ensuring adherence to regulations, data privacy, and intellectual property.

\* **Marketing & Sales Departments:** For understanding the impact on customer experience and new feature monetization.

\* **Customer Support / Call Center:** For understanding potential user impacts and preparing for new system support.

\* **Human Resources:** For staffing, training, and organizational change management.

**External Stakeholders:**

\* **Key Customers / User Representatives:** To gather feedback and validate improvements, particularly for a platform serving millions of users.

\* **Cloud Service Provider Representatives:** For technical support, services, and strategic partnership.

\* **Third-Party Vendors / Integrations:** Any partners whose systems integrate with the e-commerce platform.

### ***3. High-Level Project Goals***

Based on the problem statement and strategic objectives, the primary goals for this migration project are:

\* **Increase System Scalability:** Enhance the platform's ability to handle increasing user traffic and transaction volumes without performance degradation.

\* **Improve System Resilience:** Strengthen the platform's capacity to withstand failures and recover quickly, ensuring high availability.

\* **Accelerate Development Cycles:** Significantly reduce the time from ideation to deployment for new features and updates.

\* **Reduce Operational Costs:** Optimize the total cost of ownership for the e-commerce platform through efficiency gains and cloud resource optimization.

### ***4. SMART Success Metrics (Key Performance Indicators)***

To measure the achievement of our project goals, specific, measurable, achievable, relevant, and time-bound (SMART) metrics have been defined:

**\* Goal: Increase System Scalability**

\* **Metric 1:** Peak Transaction Processing Capacity (transactions per minute).

\* **Target:** Achieve a 100% increase in peak transaction processing capacity compared to the existing monolithic platform within 18 months post-migration.

\* **Metric 2:** Average Latency for Core User Journeys (e.g., Product Browse, Add-to-Cart, Checkout).

\* **Target:** Reduce average latency for critical user journeys by 50% within 12 months of service migration.

\* **Goal: Improve System Resilience**

\* **Metric 1:** Platform Uptime Percentage.

\* **Target:** Maintain 99.99% uptime for core e-commerce services from initial microservice deployments through project completion.

\* **Metric 2:** Mean Time To Recovery (MTTR) for Critical Incidents.

\* **Target:** Reduce MTTR for P0/P1 incidents by 75% within 6 months of significant microservice deployments.

\* **Goal: Accelerate Development Cycles**

\* **Metric 1:** Feature Release Frequency (deployments per week/month).

\* **Target:** Increase the average frequency of feature deployments by 300% within 12 months post-DevOps transformation.

\* **Metric 2:** Lead Time for Changes (from code commit to production deployment).

\* **Target:** Reduce the average lead time for changes by 75% within 12 months of CI/CD pipeline implementation.

\* **Goal: Reduce Operational Costs**

\* **Metric 1:** Infrastructure and Maintenance Cost per Transaction.

\* **Target:** Achieve a 20% reduction in average infrastructure and maintenance cost per transaction within 1 year post-full migration, while maintaining performance.

\* **Metric 2:** Cloud Resource Utilization Efficiency.

\* **Target:** Improve cloud resource utilization efficiency by 30% within 18 months of migration completion (e.g., lower cost for same throughput).

## ***5. Project Scope Delineation***

To provide clear boundaries for the project, the in-scope and out-of-scope components, systems, and functionalities are defined:

### **In-Scope:**

\* **Core E-commerce Platform Migration:** The entire large-scale, monolithic e-commerce application, including frontend, backend services, and associated databases.

\* **Architecture Transformation:** Redesign and re-implementation of the platform into a cloud-native microservices architecture.

\* **Data Migration:** Planning and execution of secure and lossless migration of all necessary e-commerce data to new cloud-native data stores.

\* **Cloud Infrastructure Setup:** Establishing the foundational cloud environment (networking, compute, storage, security services) for the new architecture.

\* **Integration with Critical Dependencies:** Ensuring seamless integration with essential third-party services (e.g., payment gateways, shipping APIs, CRM systems) currently used by the e-commerce

platform.

- \* **DevOps Transformation:** Implementation of new processes, tools (CI/CD, automation), and cultural shifts to support accelerated development and operations.

- \* **Monitoring, Logging, and Alerting:** Establishment of comprehensive observability for the new microservices architecture.

- \* **Cloud Security Framework:** Design and implementation of robust security controls for the cloud environment.

- \* **Performance and Scalability Testing:** Rigorous testing of the new architecture to validate its ability to meet performance and scale requirements.

- \* **Legacy Platform Decommissioning:** Planned and safe retirement of the monolithic platform after successful migration.

#### **Out-of-Scope (based on current problem statement):**

- \* **Development of New Business Lines:** This project focuses on the existing e-commerce platform migration, not the expansion into entirely new, non-e-commerce business domains.

- \* **Migration of Non-E-commerce Enterprise Systems:** The scope is limited to the core e-commerce platform, not other enterprise resource planning (ERP), human resources (HR), or general administrative systems unless directly interdependent.

- \* **Major Organizational Restructuring:** While DevOps culture adoption is in scope, a comprehensive reorganization of the entire company outside the project teams is not.

- \* **Development of Brand New Product Features** (unless directly enabling the migration strategy or critical for minimal viable product functionality of the microservices). The primary focus is re-platforming existing functionality.

## ***6. Consolidated Project Scope, Goals, and Success Metrics Documentation***

The detailed Project Scope, Goals, and Success Metrics, as outlined above, are formally documented within a draft Project Charter. This document serves as the single source of truth for the project's foundational definition. It has been structured for clarity and will be version-controlled for traceability.

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### ***Summary of Work Performed and Next Steps***

This report details the work completed in defining the initial project scope, goals, and success metrics.

#### **Work Completed:**

- \* Review and internalization of the overarching problem statement and context.

- \* Identification and listing of all relevant internal and external stakeholders for the project.

- \* Formulation of high-level project goals based on the strategic objectives.

- \* Definition of specific, measurable, achievable, relevant, and time-bound (SMART) success metrics (KPIs) for each project goal.

- \* Clear delineation of the in-scope and out-of-scope components, systems, and functionalities for the migration.
- \* Consolidation of the Project Scope, Goals, and Success Metrics into a formal draft document.

### **Tasks Not Performed:**

The following tasks, requiring direct human interaction and decision-making, were not performed:

- \* Facilitating stakeholder interviews and workshops to gather detailed requirements and expectations. This critical step requires direct engagement with individuals to elicit nuanced feedback and build consensus.
- \* Obtaining formal approval and sign-off on the Project Scope, Goals, and Success Metrics from all key stakeholders. This involves presenting the documented scope, addressing questions, and securing formal acceptance from all responsible parties.

### **Guidance for Next Steps:**

To advance the project, the following actions are crucial:

1. **Conduct Stakeholder Engagement:** Organize and conduct interviews and workshops with the identified stakeholders. Use the draft scope, goals, and metrics as a starting point for discussion. This will allow for the gathering of detailed requirements, addressing concerns, and refining the project definition based on collective input.
2. **Iterative Refinement:** Based on the feedback from stakeholder engagement, refine and update the Project Scope, Goals, and Success Metrics document. Ensure all key concerns are addressed and the document accurately reflects the consensus.
3. **Formal Approval Process:** Initiate the formal approval and sign-off process for the finalized Project Scope, Goals, and Success Metrics. This involves presenting the document to the Project Sponsor, Executive Leadership, and all key stakeholders for their formal endorsement, signifying their commitment and agreement to the project's foundational plan.

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### **Checklist**

1. ■ Review and internalize the overarching problem statement and context.
2. ■ Identify and list all relevant internal and external stakeholders for the project.
3. ■ Facilitate stakeholder interviews and workshops to gather detailed requirements and expectations.
4. ■ Formulate and refine high-level project goals based on gathered requirements and strategic objectives.
5. ■ Define specific, measurable, achievable, relevant, and time-bound (SMART) success metrics (KPIs) for each project goal.
6. ■ Clearly delineate the in-scope and out-of-scope components, systems, and functionalities for the migration.
7. ■ Document the consolidated Project Scope, Goals, and Success Metrics in a formal Project Charter or similar document.

8. ■ Obtain formal approval and sign-off on the Project Scope, Goals, and Success Metrics from all key stakeholders.