

Case Study

Performance Engineering of App Portfolio



1. Introduction

Customer is a digital payment services company with its Service and Customer portfolio catering to all the stakeholders in the payment processing cycle i.e. Institutions, Merchants and Consumers. Customer has third largest market share in Indian payments gateway market.

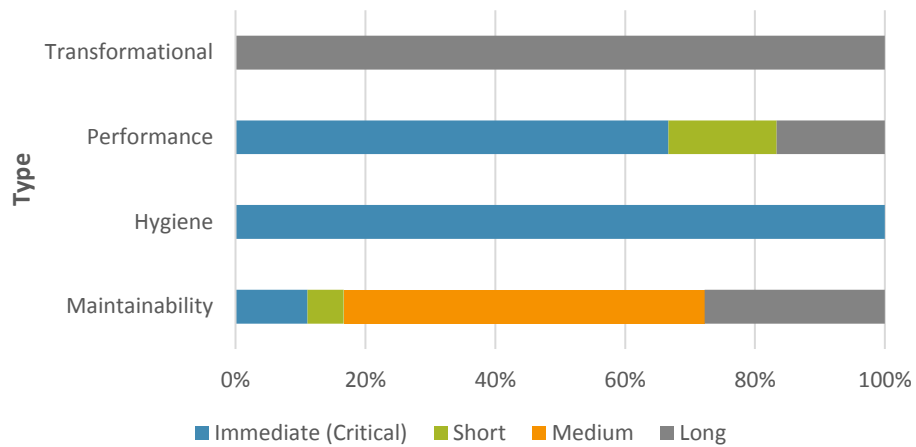
2. Problem Definition/ Engagement

- Cross border Remittance Products are Customer's flagship products with 24 operating corridors across North America, United Kingdom, Europe, Middle East, and Asia Pacific
- Remittance mobile site was live since November 2015, however the mobile site had visible performance issues
- It was urgent need of Customer to improve mobile site performance so as to maintain and increase its customer base

3. Solution

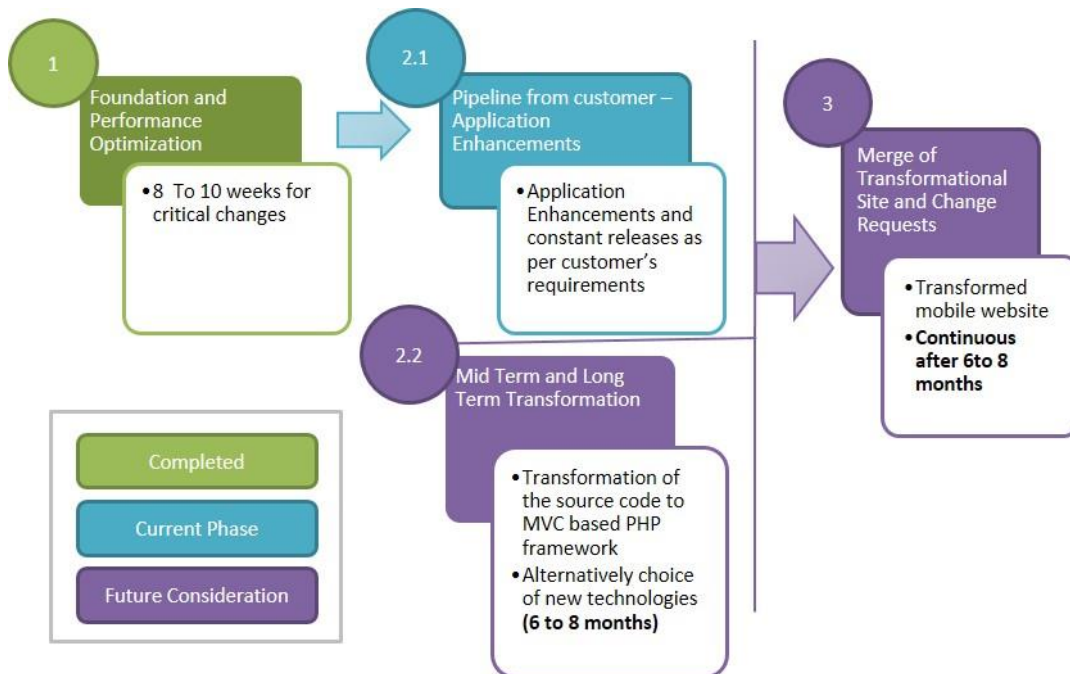
- **Topics of Analysis:** 18North performed the initial analysis and the results were classified into following sections
 - Manual Source Code Analysis
 - API Calls and Performance
 - Web Services and DB connectivity
 - Automated Code Complexity Analysis using SONAR
- **Types:** The findings and recommendations were classified into various types and duration as
 - Types: Maintainability, Hygiene, Performance, Transformational and Optimization
 - Duration: Immediate, Mid Term, Long Term
- **Roadmap:** A Collective analysis of these findings led to a roadmap with respect to goals and duration

Type v/s Duration



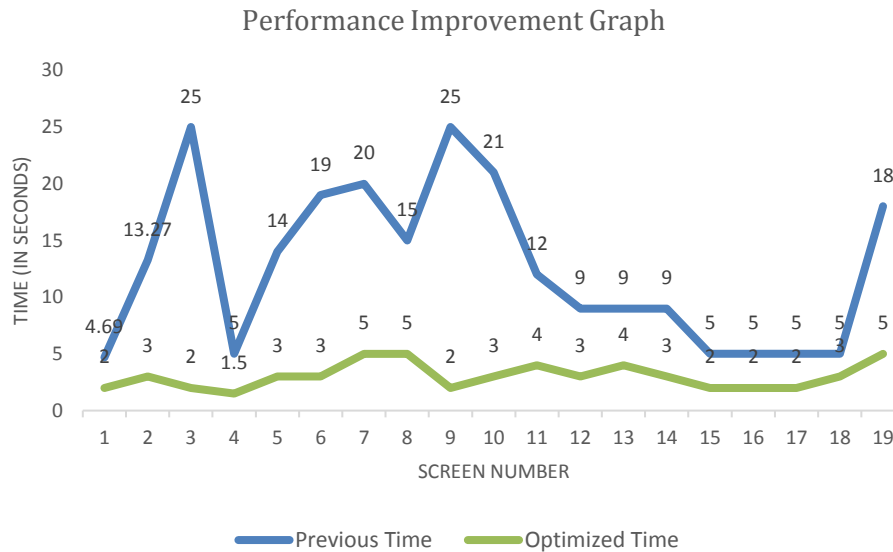
4. ROADMAP

- Considering Customer’s Business requirements, we carved out the following Roadmap to be followed for the project



5. Post-Performance Engineering

- As the Performance Engineering Plan, three sprints were planned and delivered over the period of 10 weeks.
- Post-Performance Engineering, we observed 40 – 90% improvement in page load time.



- Summary of the result:
 - Performance Improvement:
 - Average: **70%**
 - Max: **92%**
 - Optimized Response Time:
 - Maximum response time of the select pages: **5 Seconds**
 - Average response time of the select pages: **3 seconds**
 - Minimum response time of the select pages: **1.5 seconds**

