Week 2: Business Needs Assessment

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TIM-8190: Computer Science Policy and Strategy

September 12, 2021

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# Business Needs Assessment

NCU Financial wants to democratize financial serves through a comprehensive portfolio of capabilities. The organization’s primary growth model is through acquisition which is leading to inconsistent strategies and goal prioritization. NCU-F wants to mitigate these challenges with a business needs assessment. Senior leaders will use this assessment to align corporate goals and Information Technology and Communication (ITC) projects.

## Description and Purpose

Organizations use needs assessments to uncover gaps between a feature or capabilities’ current and desired performance levels (US OPM, 2021). For instance, customers can transfer money to friends and family through the NCU-F mobile app. Today, completing that process takes nearly three minutes on average, significantly longer than competing products. Business Development Managers (BDM) demand a more responsive customer experience that requires no more than fifteen seconds. However, closing the distance between these durations necessitates both time and capital investments.

Meanwhile, the Investment Accounts division is requesting those same resources to support their newly acquired trading platform. Their leadership has concerns that product stability is creating negative press through social media channels. Recently, customers could not access the web application for over sixteen hours last month. Specific leaders might view this request as the IT department wanting to work on IT projects. Nevertheless, a challenging premier release might irrevokably damage the trading platform’s credibility and potentially limit future returns (Kang, 2016). The organization must balance these decisions within a broader context.

NCU-F only has time to complete one project and needs to examine the Political, Economic, Social, and Technology (PEST) factors (Langer & Yorks, 2013). This strategy seeks to rationalize the risks and rewards derived from various external forces (see Table 1). According to that analysis, the trading platform must be the business priority because of the substantial economic and brand risks. Meanwhile, the mobile app’s performance is not a regression. Customers that accept the current latencies today are unlikely to expect sudden improvements.

Table 1: PEST Analysis

|  |  |  |
| --- | --- | --- |
| Factor | Mobile App | Trading Platform |
| Political | High. The payment processing team is a cash cow | High. The application is a rising star |
| Economic | Low. Most customers use the service for free | High. Each customer spends thousands of dollars annually |
| Social | Medium. Customers view it as a free service | High. The release’s marketing campaign is colliding with negative reviews |
| Technology | Medium. Requires upgrading hardware and software systems | High. Requires upgrading hardware and software systems |

## Explanation of Importance of Current Platform

Hundreds of platforms enable customers to trade financial instruments through mobile, web, and desktop applications. However, those solutions focus on streamlining order entry, not providing customers with the best long-term focused experience. For instance, when the market dips, most brokers flood the screen with flashing red text and induce unnecessary stress. Instead, NCU-F’s solution uses a color gradient based on the long-term trend. This subtle behavioral economic “trick” discourages our customers from buying high and selling low. Across the platform, there are numerous additional mechanisms like intelligent search result sorting to prevent purchasing the wrong instruments.

NCU-F set an aggressive timeline for delivering the trading platform to customers. It met this expectation through numerous outsourcing engagements and licensing existing technologies (see Table 2). While this approach decreased time-to-market, it left them with a heterogeneous platform that spans several vendors. For example, the Identity Services is a service façade to Microsoft Active Directory. This design simplifies specific integrations in exchange for higher licensing costs and fewer concurrent transactions.

Table 2: Trading Platform Subsystems

|  |  |  |
| --- | --- | --- |
| **Component** | **Units** | **Bounding Resource** |
| Edge Connectivity | 4 x circuits | Networking |
| Container Services | 32 x servers | CPU and Disk |
| Frontend Portal | 8 x servers | Networking |
| Identity Services | 4 x replicas | Active Directory |
| Alerting & Messaging | 8 x servers | Database Queries |
| Trade Broker | 16 x servers | CPU |
| Portfolio Manager | 4 x replicas | Memory |
| Ticker Plant Services | 32 x servers | Networking |
| Casandra Cluster | 8 x nodes | CPU and Disk |
| Audit Manager | 4 x replicas | Disk |

Diagram

Description automatically generated

## Processing Controls and Policies

## Recommendations

* Group Policies
* Password policies
* Database standardizations
* Inputs and outputs
* Software quality controls
* Operational controls