

# Operational Concept Description (OCD)

## We Are Trojans (WAT) Network

### Team01

Team members	Roles
<b>Eirik Skogstad</b>	Project Manager, Life Cycle Planner
<b>Min Li</b>	Feasibility Analyst, Operational Concept Engineer
<b>Pittawat Pamornchaisirikij</b>	NDI/NCS Acquirer & Evaluator, Tester
<b>Punyawee Pakdiying</b>	System Architect, Feasibility Analyst
<b>Saloni Priya</b>	Requirements Engineer, UML Modeler
<b>Ameer Elkordy</b>	IIV&V, Quality Focal Point
<b>Suleyman Erten</b>	Operational Concept Engineer, Requirements Engineer
<b>Kamonphop Srisopha</b>	Prototyper, UML Modeler

04/08/2015

# Version History

Date	Author	Version	Changes made	Rationale
10/10/14	ML, PP, SE	0.5	<ul style="list-style-type: none"> <li>Original template for use</li> </ul>	<ul style="list-style-type: none"> <li>Initial draft for use</li> </ul>
10/18/14	ML, PP, SE	1.0	<ul style="list-style-type: none"> <li>Complete all section</li> <li>fixed inconsistency word</li> </ul>	<ul style="list-style-type: none"> <li>Update information information according to the comment from the ARB session</li> </ul>
10/29/14	SE	1.1	<ul style="list-style-type: none"> <li>Level of Service</li> </ul>	<ul style="list-style-type: none"> <li>Level of Service update from Winbook</li> </ul>
11/29/14	SE	1.5	<ul style="list-style-type: none"> <li>Program Model Font Color</li> <li>Initiative in Program Model</li> <li>Benefits Chain Diagram</li> <li>System Boundary and Environment</li> <li>Table of Artifacts Descriptions</li> <li>Capability Goals</li> <li>Document Template</li> </ul>	<ul style="list-style-type: none"> <li>Feedback from ARB</li> </ul>
12/07/14	PP	2.0	<ul style="list-style-type: none"> <li>Update the header of the document</li> <li>Update the document verison</li> </ul>	<ul style="list-style-type: none"> <li>Update for DCP review</li> </ul>
02/15/15	SE	3.0	<ul style="list-style-type: none"> <li>Update the document version</li> <li>Update in System Boundry</li> </ul>	<ul style="list-style-type: none"> <li>Update for RDCP review</li> </ul>
04/08/15	SE		<ul style="list-style-type: none"> <li>Update the header of the document</li> <li>Update the document version</li> <li>Updated section 3.2.5</li> </ul>	<ul style="list-style-type: none"> <li>For TRR Package Submission</li> </ul>

# Table of Contents

<i>Operational Concept Description (OCD)</i> .....	<i>i</i>
<i>Version History</i> .....	<i>ii</i>
<i>Table of Contents</i> .....	<i>iii</i>
<i>Table of Tables</i> .....	<i>iv</i>
<i>Table of Figures</i> .....	<i>v</i>
<b>1. Introduction</b> .....	<b>1</b>
<b>1.1 Purpose of the OCD</b> .....	<b>1</b>
<b>1.2 Status of the OCD</b> .....	<b>1</b>
<b>2. Shared Vision</b> .....	<b>2</b>
<b>2.1 Benefits Chain</b> .....	<b>3</b>
<b>2.2 System Capability Description</b> .....	<b>3</b>
<b>2.3 System Boundary and Environment</b> .....	<b>4</b>
<b>3. System Transformation</b> .....	<b>5</b>
<b>3.1 Information on Current System</b> .....	<b>5</b>
<b>3.2 System Objectives, Constraints and Priorities</b> .....	<b>6</b>
<b>3.3 Proposed New Operational Concept</b> .....	<b>8</b>
<b>3.4 Organizational and Operational Implications</b> .....	<b>10</b>

# Table of Tables

*Table 1: The Program Model* .....2

*Table 2: The Capability Goals* .....6

*Table 3: Level of Service Goals*.....6

*Table 4: Relation to Current System*.....7

# Table of Figures

<i>Figure 1: Benefits Chain Diagram of WAT Network.....</i>	<i>3</i>
<i>Figure 2: System Boundary and Environment Diagram of WAT Network.....</i>	<i>4</i>
<i>Figure 3: Current Business Workflow.....</i>	<i>5</i>
<i>Figure 4: Element Relationship Diagram of WAT system.....</i>	<i>8</i>
<i>Figure 5: Business Workflow Diagram of WAT System.....</i>	<i>9</i>

# **1. Introduction**

## **1.1 Purpose of the OCD**

This document lists out details of win-conditions negotiated among success-critical-stakeholder of the We Are Trojans (WAT) Network. The success-critical stakeholders of the project are Matthew Wong, our client; USC students and staff, as users; Team 1, as a software development and maintenance team.

## **1.2 Status of the OCD**

The OCD is currently in version 4.0 for TRR. We completed all of the section in OCD and also update the information according to the RARB session.

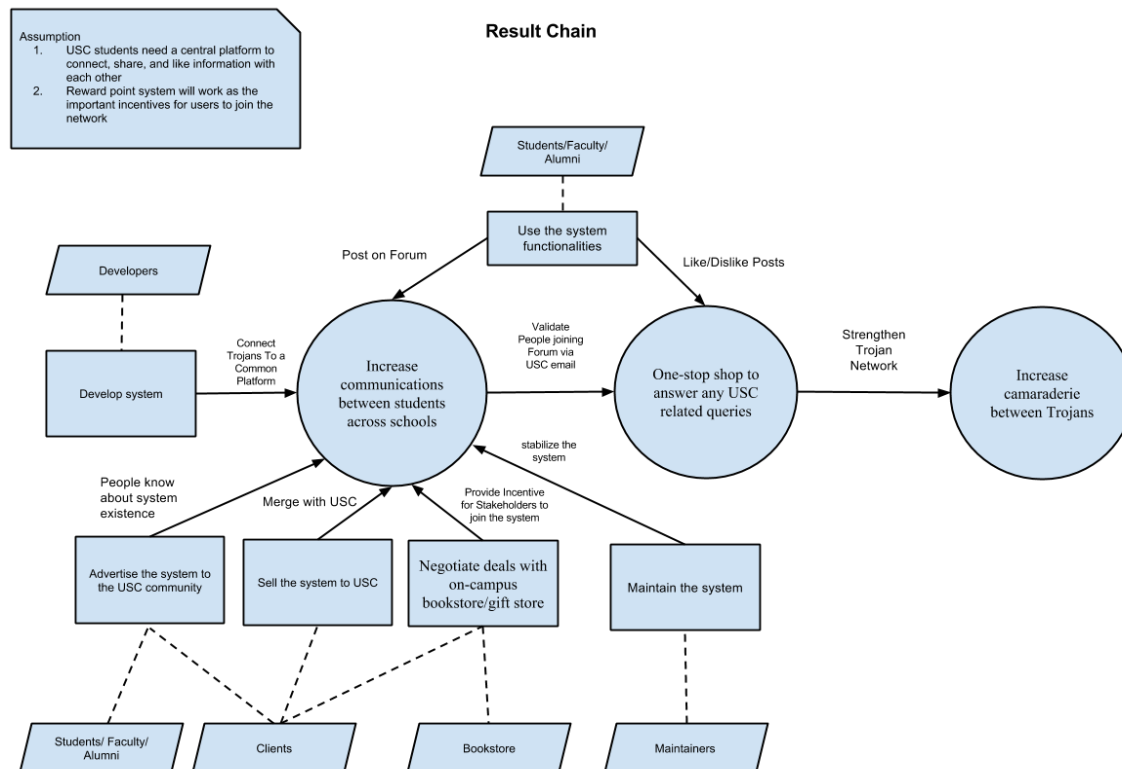
## 2. Shared Vision

**Legend:** Benefits are added to the program model:

**Table 1: The Program Model**

Assumptions			
<ul style="list-style-type: none"> <li>• USC students need a central platform to connect, share, and like information with each other</li> <li>• Reward point system will work as the important incentives for users to join the network</li> </ul>			
Stakeholders (Who is accountable for the initiatives)	Initiatives (What to do to realize benefits)	Value Propositions (Benefits i.e Why)	Beneficiaries (Who derives value)
<ul style="list-style-type: none"> <li>• Developers</li> <li>• Maintainers</li> <li>• Clients</li> <li>• Gift/Book stores</li> </ul>	<ul style="list-style-type: none"> <li>• Develop the system</li> <li>• Maintain the system</li> <li>• Advertise the system to USC community</li> <li>• Partner with schools</li> <li>• Negotiate deals with on-campus bookstore/gift store</li> <li>• Use the system functionalities</li> </ul>	<ul style="list-style-type: none"> <li>• Increase camaraderie between Trojans</li> <li>• One-stop shop to answer any USC related queries</li> <li>• Increase communications between students across schools</li> </ul>	<ul style="list-style-type: none"> <li>• USC students</li> <li>• USC alumni</li> <li>• USC faculty</li> </ul>
<b>Cost</b> (Cost factors) <ul style="list-style-type: none"> <li>• Development costs</li> <li>• Maintenance costs</li> <li>• Advertising/Marketing costs</li> <li>• Web server, Web hosting, Domain name</li> </ul>		<b>Benefits</b> (Key performance indicators – KPIs) <ul style="list-style-type: none"> <li>• The number of active users in “WAT” network increases.</li> </ul>	

## 2.1 Benefits Chain



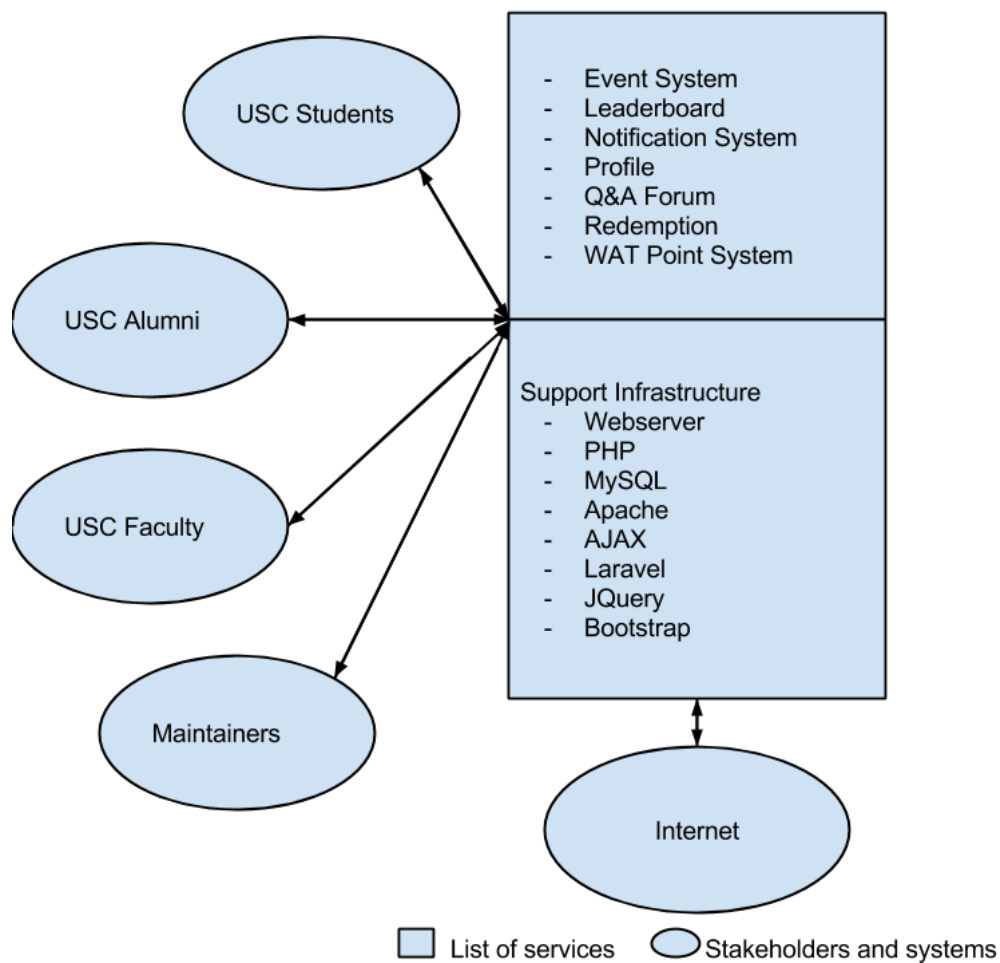
**Figure 1: Benefits Chain Diagram of WAT Network**

## 2.2 System Capability Description

- The We are Trojans (WAT) Network is a social collaboration website.
- The target customers are USC students, USC alumni, and USC faculty.
- The need or opportunity that will be satisfied by the system.
  - Increase communication between students across schools
  - Increase camaraderie between Trojans
  - One-stop shop to answer any USC-related queries
- A compelling reason for the customer to buy/use the system.
  - This system will facilitate the users to ask questions to other students by just logging into the system and searching for the existing thread or post a new one in the forum.
  - For a user who contributes to the We Are Trojans system, he or she will get WAT points which can be redeemed for items/giftcards.
  - All questions can be answered in a single place.
- The closest competitor:
  - D2L forums
  - Piazza
  - Facebook
- The system's primary differentiation from, or benefit over, the closest competitor or alternative approach, if there are competitors or alternatives at the time
  - WAT Network rewards users who contribute to the system by giving them WAT points.



## 2.3 System Boundary and Environment



**Figure 2: System Boundary and Environment Diagram of WAT Network**

## 3. System Transformation

### 3.1 Information on Current System

#### 3.1.1 Infrastructure

There is no current infrastructure.

#### 3.1.2 Artifacts

Currently, there are no artifacts. However, we will probably be using artifacts listed below.

#### 3.1.3 Current Business Workflow

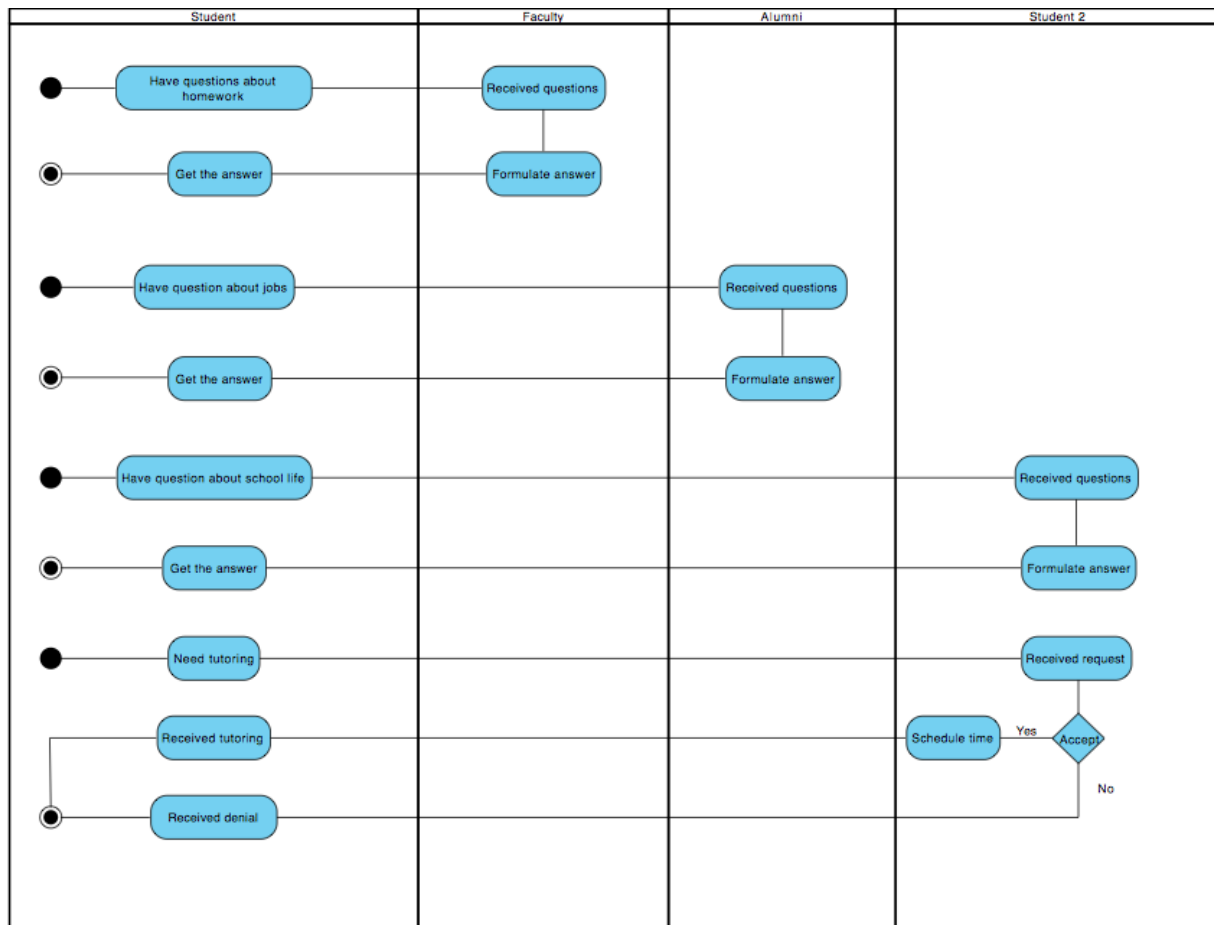


Figure 3: Current Business Workflow

## 3.2 System Objectives, Constraints and Priorities

### 3.2.1 Capability Goals

The Priority Level ranges from 1-10; 1 is the highest level priority and 10 is the lowest level.

**Table 2: The Capability Goals**

Capability Goals	Priority
OC-1 Q&A Forum	1
OC-2 WAT Point System	2
OC-3 Notification System	3
OC-4 Profile	4
OC-5 Leaderboard	5
OC-6 Redemption	6
OC-7 Event System	7

### 3.2.2 Level of Service Goals

**Table 3: Level of Service Goals**

The Priority Level ranges from 1-10; 1 is the highest level priority and 10 is the lowest level.

Level of Service Goals	Priority Level	Referred WinWin Agreements
LOS-1: The system shall be user-friendly and intuitive.	1	WC_3253
LOS-2: The system shall render correctly on mobile platforms.	2	WC_3256

### 3.2.3 Organizational Goals

**OG-1:** Increase the connection among students by providing them with an easy-to-use forum.

**OG-2:** Increase the credible information via like/dislike ratio.

**OG-3:** Increase the speed at which the users receive answers to queries via tracking the number posts on the forum.

**OG-4:** Increase USC brand via estimating the increase in the number of active users.

**OG-5:** Reduce workload of USC staff to answer students question by providing an alternative way to answer the questions.

### 3.2.4 Constraints

**CO-1: Zero Monetary Budget:** The COTS or NDI/NCS should be free of charge.

**CO-2: Only Web-based platform :** Users can only use the platform via web right now.

**CO-3: Only non-negative points on a post :** Points on each post cannot be negative.

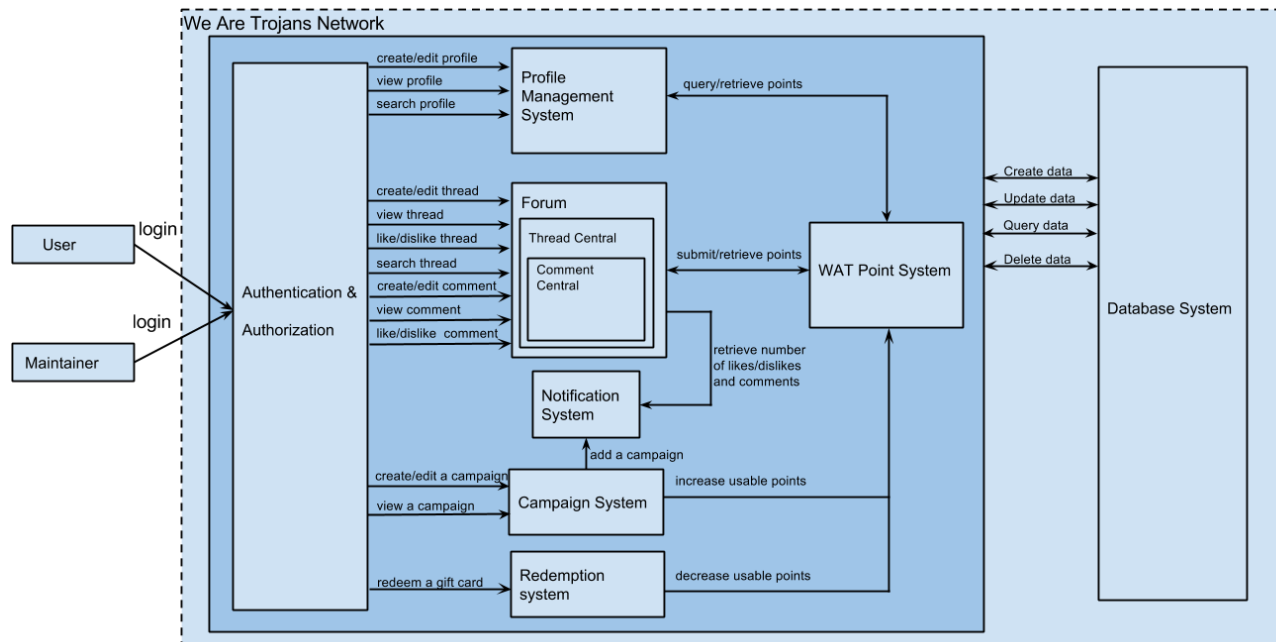
### 3.2.5 Relation to Current System

**Table 4: Relation to Current System**

Capabilities	Current System	New System
Roles and Responsibilities	<ul style="list-style-type: none"> <li>• USC Students ask, and answer question tutoring</li> <li>• USC Alumni provides information about career</li> <li>• USC Faculty provides USC information</li> </ul>	<ul style="list-style-type: none"> <li>• USC Students ask, and answer question tutoring</li> <li>• USC Alumni Provides information about career</li> <li>• USC Faculty provides USC information</li> <li>• Moderator monitoring WAT system</li> <li>• IT Staff maintain WAT infrastructure</li> </ul>
User Interactions	<ul style="list-style-type: none"> <li>• Asking other User for a favor</li> <li>• Asking USC Alumni for career information</li> <li>• Asking USC Faculties for USC information</li> </ul>	<ul style="list-style-type: none"> <li>• Search for an answer for their question.</li> <li>• Posting some question in WAT forum and wait for answers.</li> <li>• Redeem gift cards/items from the WAT system</li> </ul>
Infrastructure	there are no infrastructures	<ul style="list-style-type: none"> <li>• Webserver</li> <li>• Database system</li> </ul>
Stakeholder Essentials and Amenities	<ul style="list-style-type: none"> <li>• USC students</li> <li>• USC Alumni</li> <li>• USC Faculties</li> </ul>	<ul style="list-style-type: none"> <li>• USC students</li> <li>• USC Alumni</li> <li>• USC Faculties</li> <li>• Moderators</li> <li>• IT staffs</li> </ul>
Future Capabilities	<ul style="list-style-type: none"> <li>• Redemption</li> </ul>	Integrate with USC to be able to give more information to the user, and gain more credibility for WAT system and support it with sustainable redemption system.

## 3.3 Proposed New Operational Concept

### 3.3.1 Element Relationship Diagram



**Figure 4: Element Relationship Diagram of WAT system  
(Architected agile project)**

### 3.3.2 Proposed Business Workflow

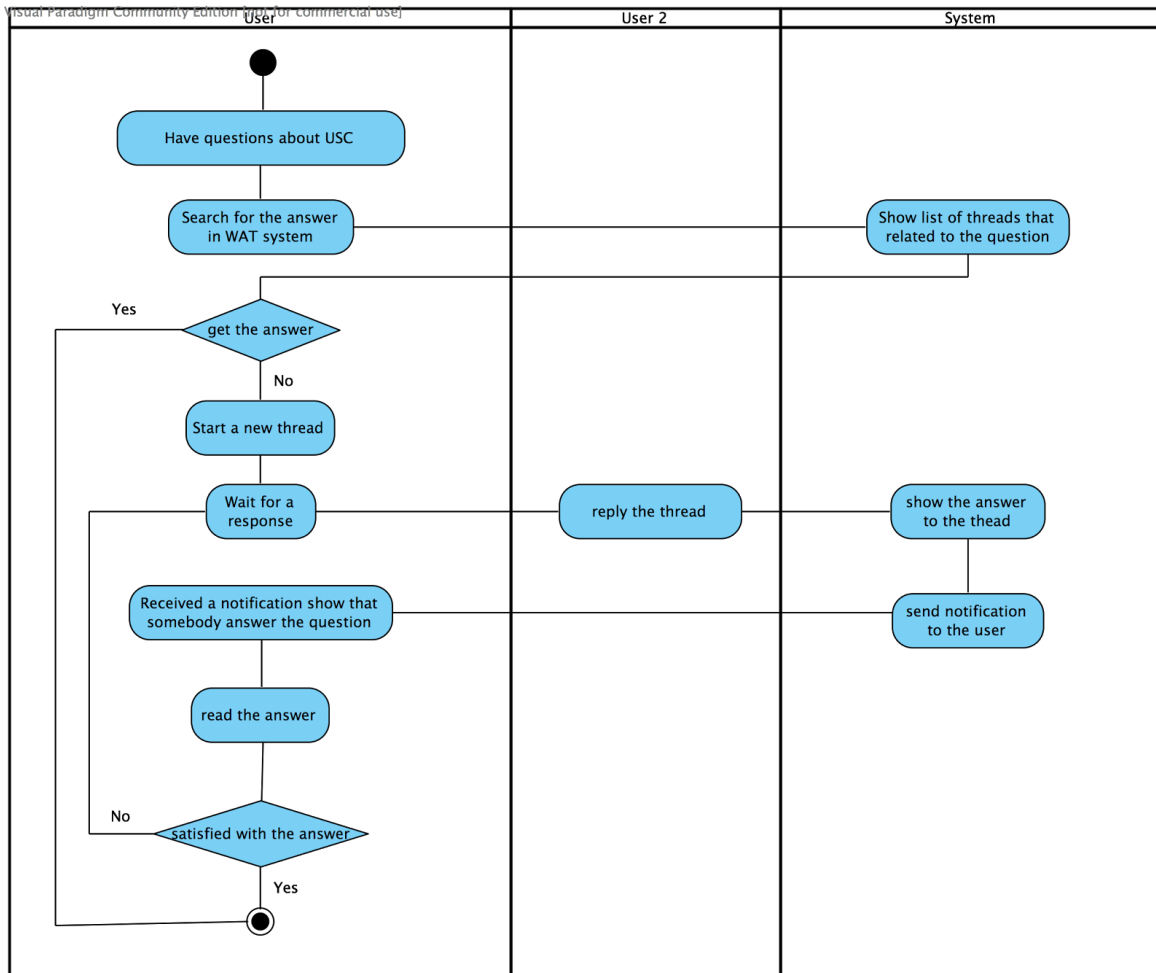


Figure 5: Business Workflow Diagram of WAT System

## **3.4 Organizational and Operational Implications**

### **3.4.1 Organizational Transformations**

- The need to hire moderators to monitor the system
- The reduction in workload of USC faculty that have to answer USC students' questions.
- The need to have some IT personals to maintain We Are Trojans system.

### **3.4.2 Operational Transformations**

- The option for USC students to ask questions in a common system instead of calling USC staff or asking other students in person.
- Using old items that cannot sell in the USC bookstore in a more useful way by allowing We Are Trojans users to redeem WAT Points for it.
- Having a friendly competition among the USC community by using WAT point systems.