

# Operational Concept Description (OCD)

## We Are Trojans (WAT) Network

### Team01

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10/10/2014

# Version History

| Date     | Author        | Version | Changes made  | Rationale  |
|----------|---------------|---------|---|--|
| 10/10/14 | ML, PP,<br>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,<br>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> |

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# **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 1.0 for FCP. We completed all of the section in OCD and also update the information according to the ARB session.

## 2. Shared Vision

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

**Table 1: The Program Model**

| <b>Assumptions</b> <ul style="list-style-type: none"> <li>• <b>USC students need a central platform to connect, share, and like information with each other</b></li> <li>• <b>Reward point system will work as the important incentives for users to join the network</b></li> </ul> |  |  |   |
|--|--|--|---|
| <b>Stakeholders</b><br>(Who is accountable for the initiatives)  | <b>Initiatives</b><br>(What to do to realize benefits)   | <b>Value Propositions</b><br>(Benefits i.e Why)  | <b>Beneficiaries</b><br>(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>• Monitor 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> </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

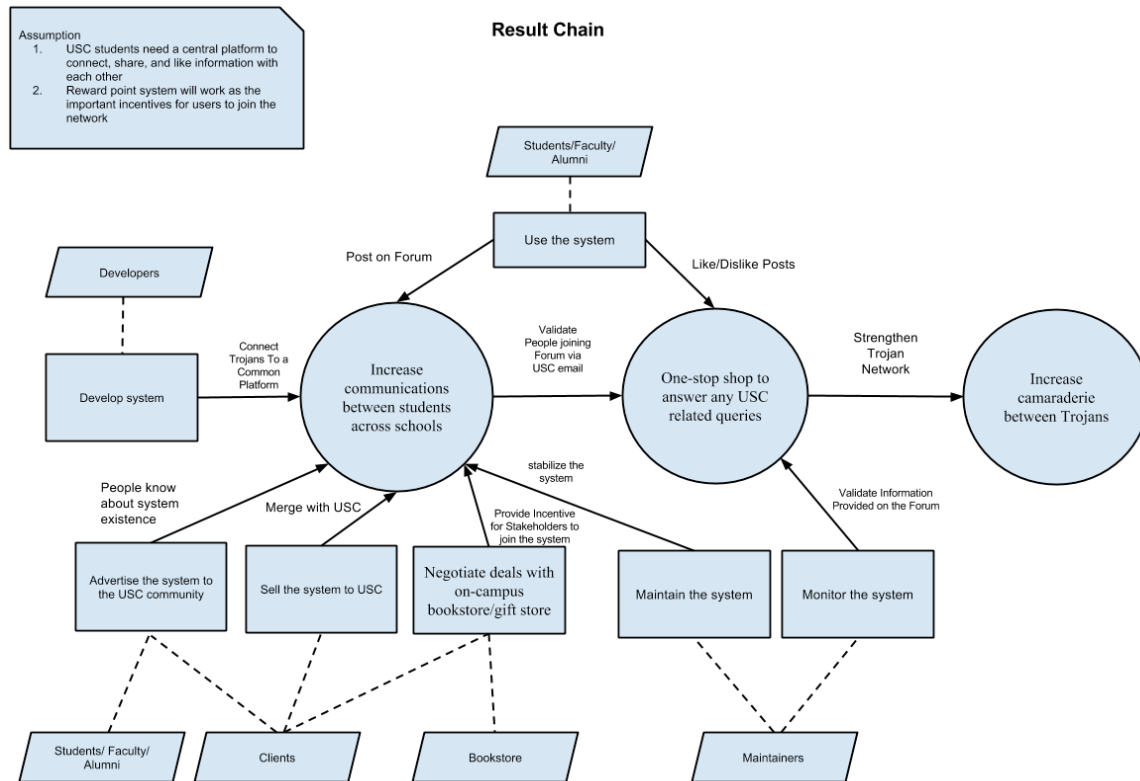


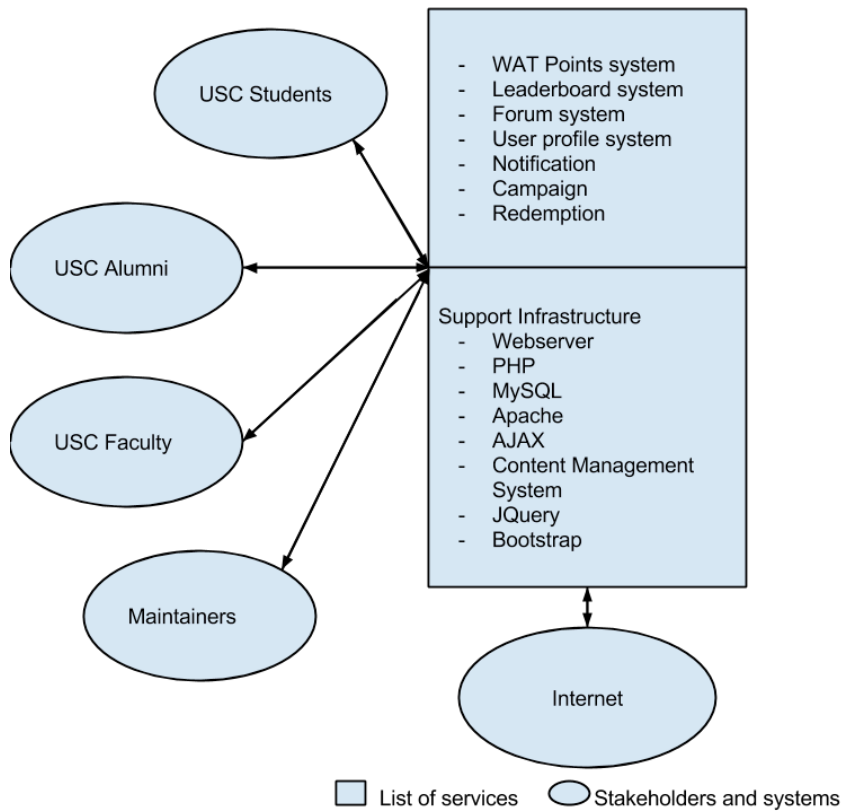
Figure 1: Benefits Chain Diagram of WAT Network

## 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.

**Table 2: Artifact Descriptions**

| Artifacts                                 | Description   |
|---|---|
| CMS (Joomla, Drupal, Wordpress)           | Provide general functions for manage content on website               |
| DBMS (MySQL)                              | For keeping, managing, and retrieving data storage used in the system |
| Webserver (PHP-based)                     | Infrastructure for our system   |
| JQuery                                    | Provide DOM manipulation methods                                      |
| CSS framework (ex. bootstrap, foundation) | CSS API to customize user interface on website                        |

### 3.1.3 Current Business Workflow

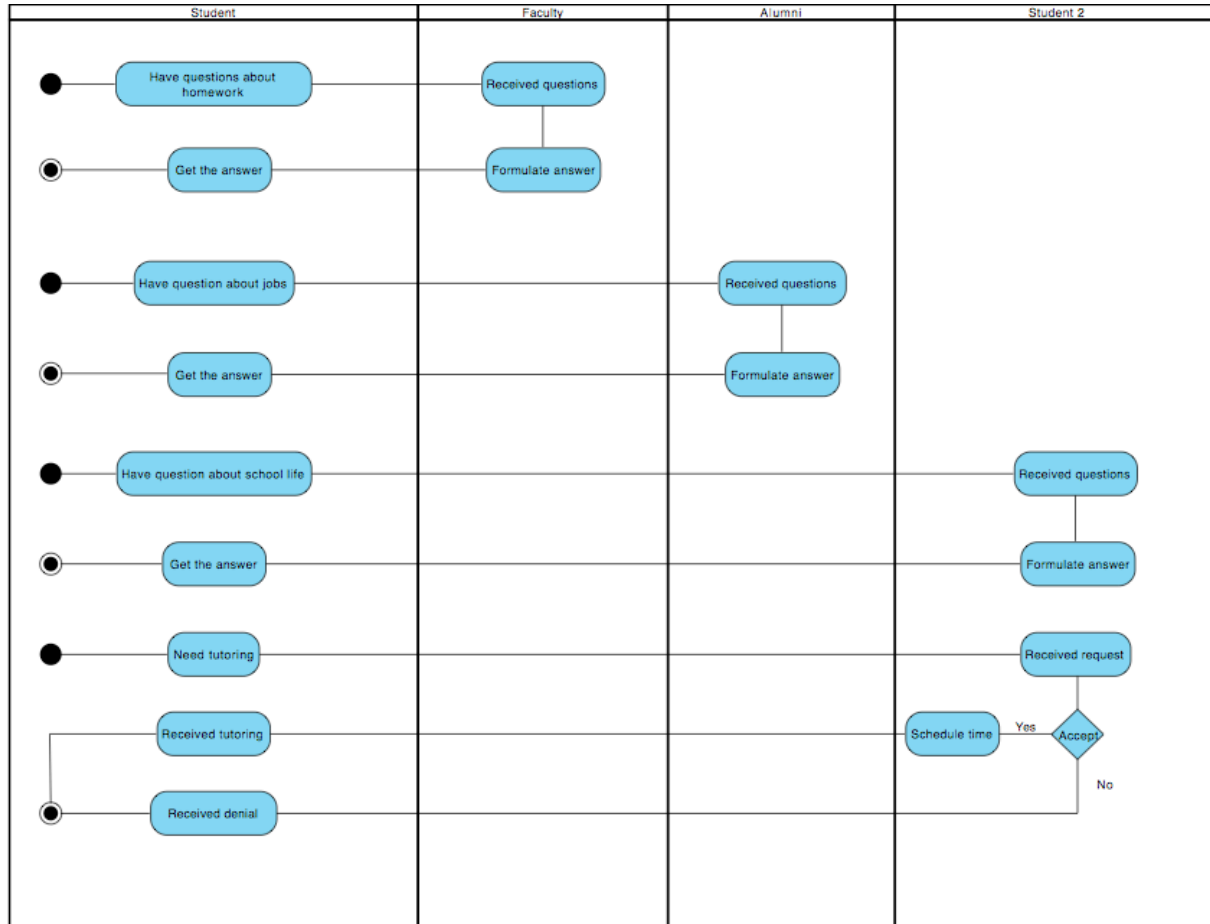


Figure 3: Current Business Workflow

## 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 3: The Capability Goals**

| Capability Goals   | Priority |
|--|----------|
| OC-1 Post/Edit/Delete a thread: Users are able to post/edit/delete a thread.   | 1        |
| OC-2 Calculate the WAT points: The system should correctly calculate three types of WAT points.                              | 4        |
| OC-3 Like/Dislike : Users are able to like or dislike threads and posts  | 3        |
| OC-4 Make a post: Users could post on the thread.  | 2        |
| OC-5 Redeem the gift card: Users could use the usable points to redeem the gift card   | 5        |
| OC-6 Automated useless posts deletion: The system is capable of deleting the useless posts.                                  | 6        |
| OC-7 Automated notification: The system is able to notify the users the number of likes/dislikes/posts and recent campaigns. | 7        |
| OC-8 Post/Edit/Delete the campaign: The maintainer is able to post/edit the campaign on the campaign activity board.         | 8        |
| OC-9 Categorization function: The system could categorize the posts  | 9        |

### 3.2.2 Level of Service Goals

**Table 4: 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 |
|--|----------------|
| LOS-1: The system shall not be down more than 24 hours in one month. | 1              |
|  |                |

### 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

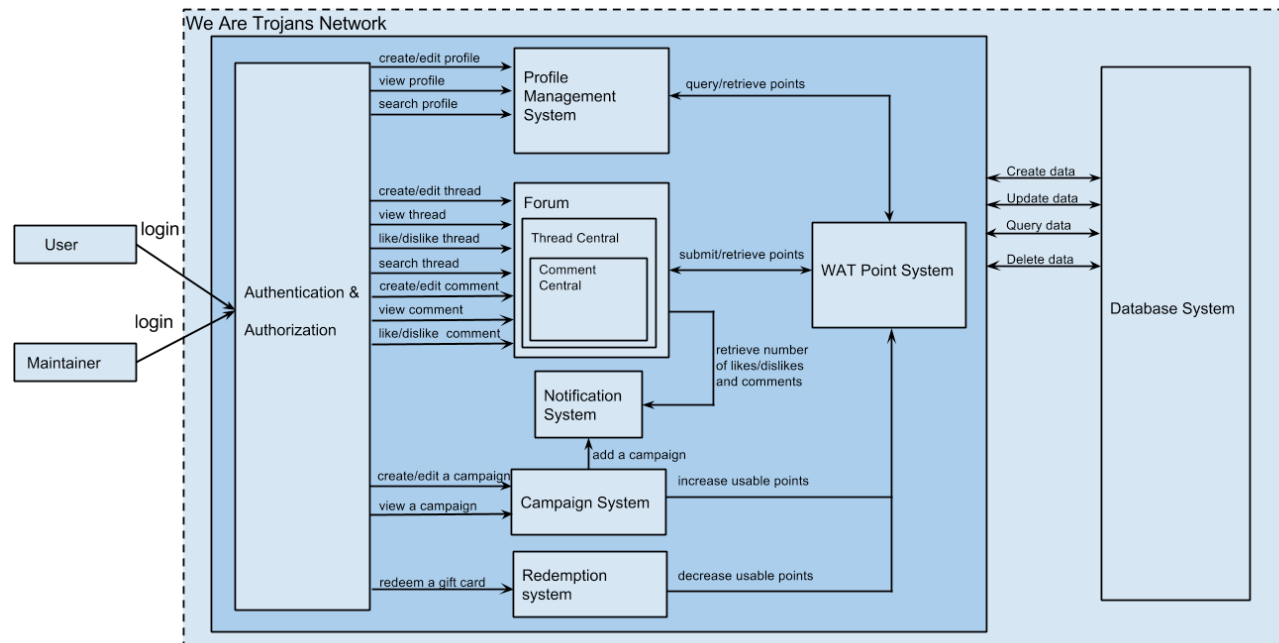
**Table 5: Relation to Current System**

| 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 | there is no future capabilities | Integrate with USC to be able to give more information to the user, and gain more credibility for WAT system. |
|---------------------|---------------------------------|---|

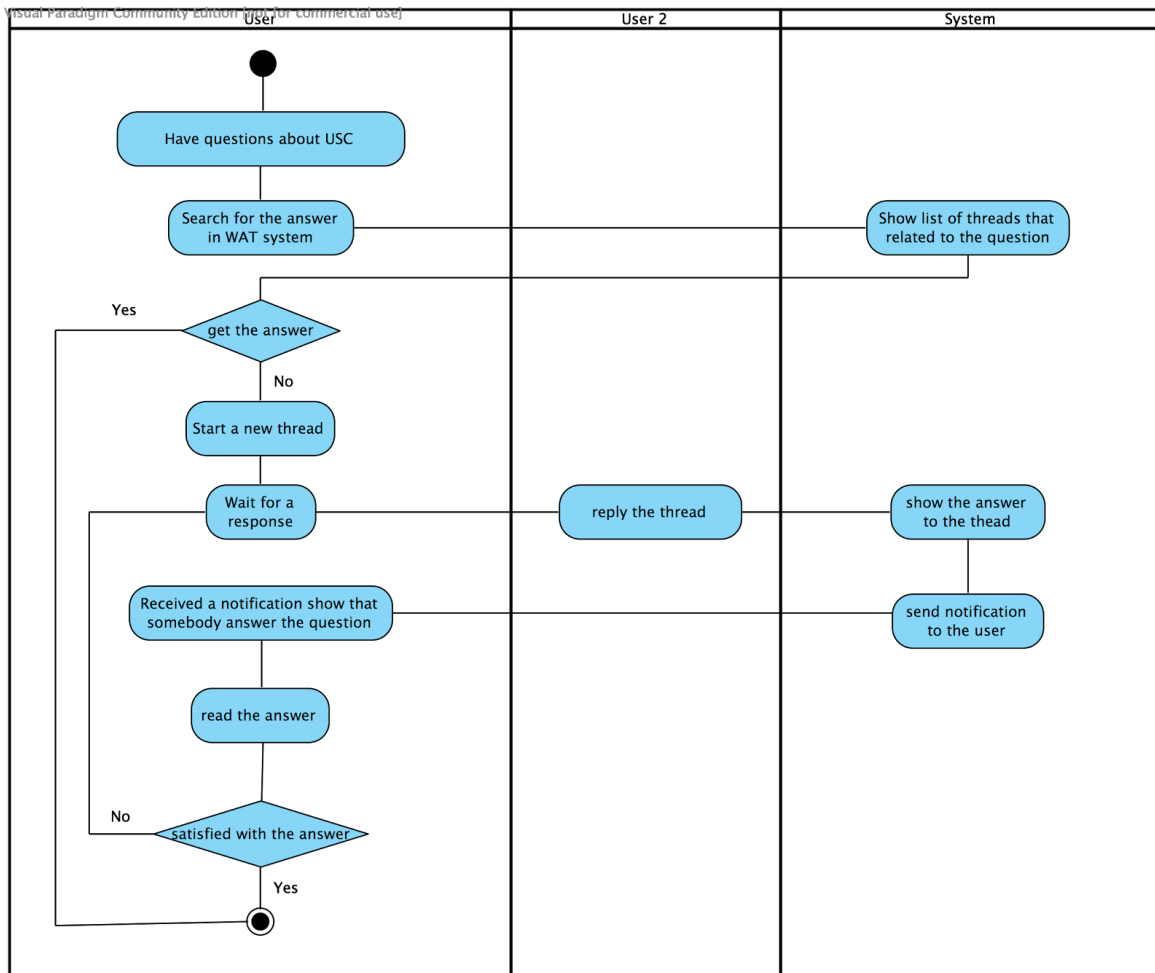
## 3.3 Proposed New Operational Concept

### 3.3.1 Element Relationship Diagram



**Figure 4: Element Relationship Diagram of WAT system (NDI-intensive project)**

### 3.3.2 Business Workflows



**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.