# Operational Concept Description (OCD)

PicShare

## Team 02

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**4/14/16**

# Version History

| Date | Author | Version | Changes made | Rationale |
|---|---|---|---|---|
| 10/18/15 | Mohammad & Aref | 0.9 | • Introduction, Shared Vision and System Transformation added. | • OCD draft before presentation. |
| 10/25/15 | Mohammad & Aref | 1.0 | • Fix some issues in the Benefit Chain Diagram<br>• Fix minor issue with the System Boundaries Diagram<br>• Introduce a new priority level in the Capability Goals section. | • First Version FCP |
| 11/29/15 | Mohammad & Aref | 2.0 | • Changed Some Capability Goals<br>• Changed Some Constraints | • DCR Package |
| 12/4/15 | Mohammad & Aref | 2.1 | • Add initiatives to the Benefit Chain Diagram | • DCR Package |
| 4/14/16 | Mohammad & Aref | 2.2 | • Update the organizational and operational implications | • TRR Package |

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# 1. Introduction

## 1.1 Purpose of the OCD

The purpose of this OCD document is to give an in-depth detail of the shared visions and goals of the stakeholders for the PicShare mobile application. The success-critical stakeholders for the project are Rigo Garcia as the project owner. The users who are going to be USC students in the initial phase of the project. Team 2 as the developers of the system.

## 1.2 Status of the OCD

The status of the OCD is currently under development version number 1.0. All the OCD main sections have been completed according to the Foundation Commitment Package requirements.

# 2. Shared Vision

Our vision, in this project, is to create a mobile application that makes picture sharing easier than it is today.

**Table 1: The Program Model**

| **Assumptions**<br>• People are willing to share their pictures.<br>• People have smartphones with camera and Internet connection. | | | |
|---|---|---|---|
| **Stakeholders** | **Initiatives** | **Value Propositions** | **Beneficiaries** |
| • Maintainers and Administrators<br>• Developers<br>• Users<br>• Owner | • Design & Develop the new system<br>• Marketing campaign<br>• Proper Training and knowledge transfer<br>• Maintain the System<br>• Survey and User Testing | • Increase efficiency of sharing pictures.<br>• Improve user experience by allowing users to create/post different types of events (public, private, location)<br>• Easier picture sharing options | • Users<br>• Owner |

**Legend:**

Initiatives that need to be undertaken to help beneficiaries **derive value** from the expected benefits/value propositions

Initiatives that need to be undertaken to help **deliver value** to the beneficiaries (i.e. "how" will the benefits reach the beneficiaries?)

# 2.1 Benefits Chain

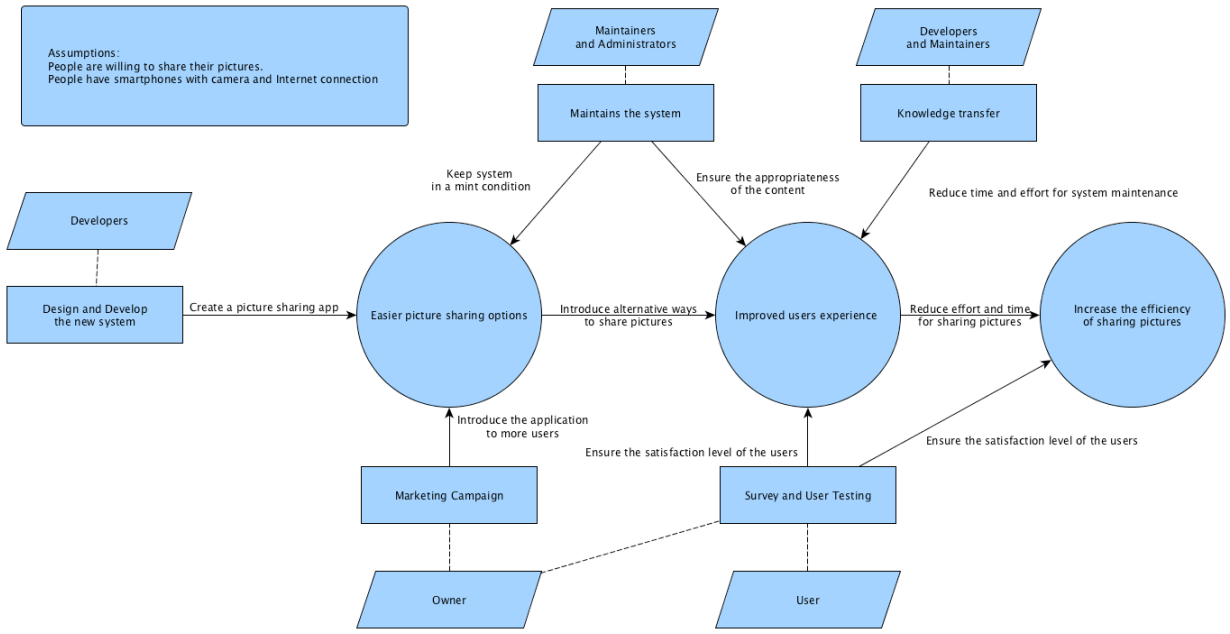


**Figure 1: Benefits Chain Diagram**

# 2.2 System Capability Description

The mobile app required to be built, aims to make sharing pictures easier for people. The application mainly targets people on the age range of 18-45. in the early phases of deployment, the application will target USC students. PicShare will be capable of taking pictures and give the user two sharing options. The first option is to share the picture based on the location. The second option is to share the picture through public/private hashtags. The second option will give the user the ability to search for public/private hashtags and look to the pictures related to the searched event.

There are many picture sharing competitors in the market like Snapchat and Instagram. However, PicShare has its own unique features like saving pictures which is not available on both Snapchat and Instagram. In addition, the location based picture sharing is a unique feature that is not available in any other application except Snapchat, however Snapchat location based sharing is chose by the Snapchat team, whereas PicShare gives the user the freedom to share pictures based on his location.

# 2.3 System Boundary and Environment

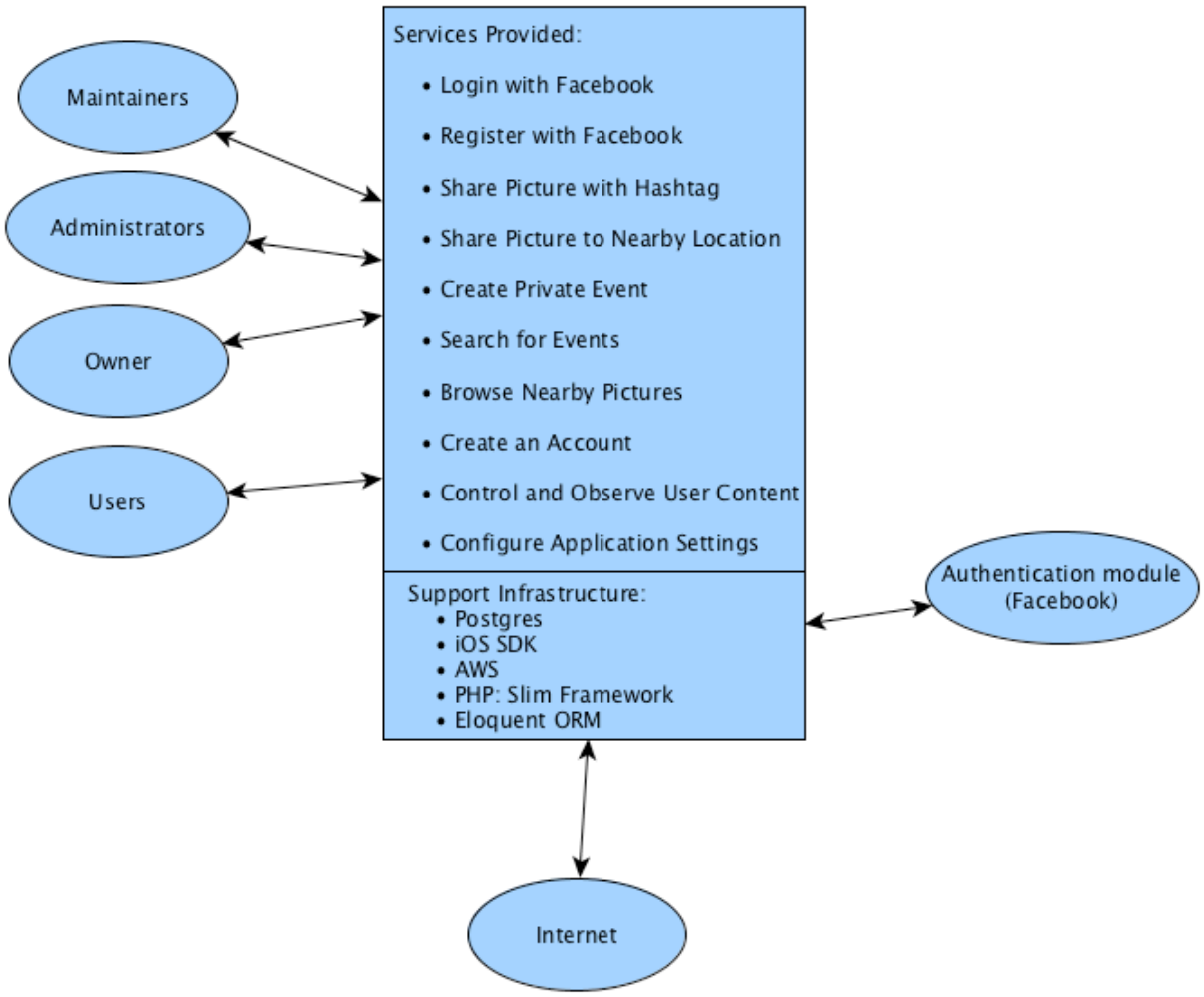


**Figure 2: System Boundary and Environment Diagram**

# 3. System Transformation

## 3.1 Information on Current System

### 3.1.1 Infrastructure

This is a new application that will be developed from scratch. There is no current infrastructure for this project. The application will be developed for iOS as well as Android. Therefore, Snapchat's workflow will be used as the current system workflow.

### 3.1.2 Artifacts

There is no current system for our project. Therefore, we chose Snapchat's live story as our model.

| Artifact | Description |
|---|---|
| Use Case Diagrams | Describe the required features of the system |
| Robustness Diagrams | Detailed use cases and how they interact with the system classes. |
| Activity Diagrams | Defines the flow of a certain process |
| Design Document | The software description that is given to the development team. |
| Software Architecture | The structure of a software system. |
| Prototype | Created to avoid any system risks and defects |
| Data Model | The relationship between entities. |

### 3.1.3 Current Business Workflow

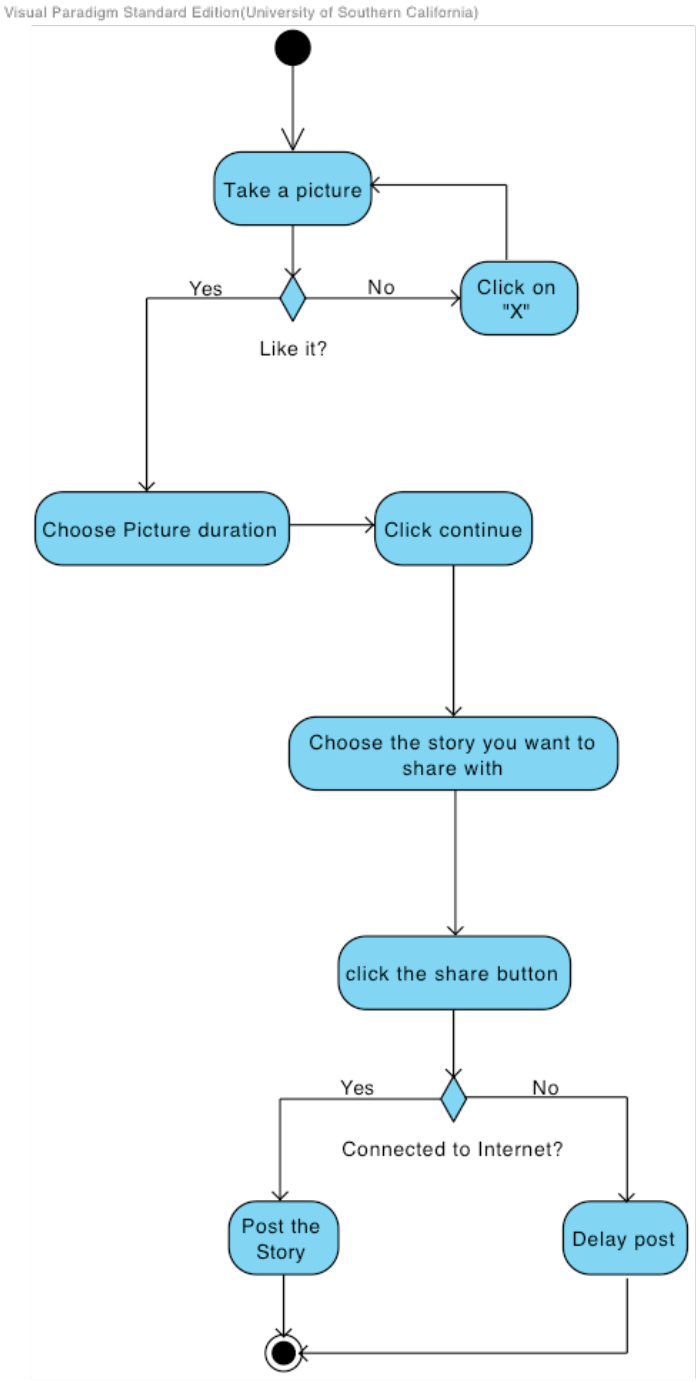


**Figure 3: Current Business Workflow**

# 3.2 System Objectives, Constraints and Priorities

## 3.2.1 Capability Goals

| Capability Goals | Priority Level |
|---|---|
| **OC-1 Use Hashtag**: User can post pictures with a hashtag that indicates a public event | Must Have |
| **OC-2 Login with Facebook**: User can login using Facebook. | Must Have |
| **OC-3 Use Location**: User can post pictures to the nearby location | Must Have |
| **OC-4 Search Events**: User can search events by their name (hashtag). | Must Have |
| **OC-5 Browse Event's Pictures**: User can browse pictures associated with an event and sort them by like or date. | Must Have |
| **OC-6 Administrator**: Admin can control and supervise user's content. | Must Have |
| **OC-7 Delete Picture**: Users can delete pictures that they posted. Users can also delete pictures of their private events. | Should Have |
| **OC-8 Create/Delete Private Event**: User can create/delete a private event that only people with password has access to it. | Should Have |
| **OC-9 Like/unlike Picture**: Users are able to like/unlike a picture | Could Have |
| **OC-10 Report Picture**: Users are able to report inappropriate pictures. | Could Have |
| **OC-11 Choose Add Picture Type**: When user create a private event they can choose if users can upload pictures, or only post pictures captured live. | Could Have |
| **OC-12 Take Picture or Choose from Gallery**: Users can decide whether to take a photo or choose it from gallery when adding a picture. | Could Have |
| **OC-13 Save Picture to Device**: User can save the picture to his/her own device. | Could Have |

### 3.2.2 Level of Service Goals

To this point, we haven't decided about any acceptable goals for the proposed new system's important levels of service.

### 3.2.3 Organizational Goals

Organizational goals are as follows:

**OG-1**: Simplify sharing pictures from smart phones.
**OG-2**: Share location based pictures.
**OG-3**: Share public and private hashtags with friends and families.
**OG-4**: Increase efficiency of sharing pictures.
**OG-5**: Improve user experience by allowing users to create/post different types of events (public, private, location)

### 3.2.4 Constraints

Constraints are as follows:

**CO-1: iOS as an Operating Systems:** The new system should be an iOS application.
**CO-2: Facebook Login:** The user should be able to use the application using his Facebook credentials.
**CO-3: Zero Monetary Cost:** The Chosen NDI/NCS must be free.
**CO-4: Linux as an Operating System:** the available server is running Linux.
**CO-5: Free Database Systems**.

### 3.2.5 Relation to Current System

In information on current system, we mentioned that since we are building the system from scratch we studied Snapchat's workflow as current system.

**Table 2: Relation to Current System**

| Capabilities | Current System | New System |
|---|---|---|
| Roles and Responsibilities | • User Has access to friends and public events<br>• User can add picture to his/her story that only friends can see.<br>• User can add picture to public stories | • User has access to public events and private events that he has their password.<br>• User can create public events and add/or picture to them.<br>• User can add picture to private events with password. |
| User Interactions | • Cannot create story | • Create public event by just adding |

| | | |
|---|---|---|
| | • Cannot sort pictures that are being shown in story<br>• Cannot like a picture<br>• Doesn't have private story for multiple users | a hashtag to picture<br>• Sort pictures in a event based on number of likes or time<br>• Like a picture<br>• Create private events that everyone with password can access to. |
| Infrastructure | N/A | New mobile application, server and database. |
| Stakeholder Essentials and Amenities | N/A | • Easier way of sharing pictures |
| Future Capabilities | N/A | N/A |

# 3.3 Proposed New Operational Concept

## 3.3.1 Element Relationship Diagram

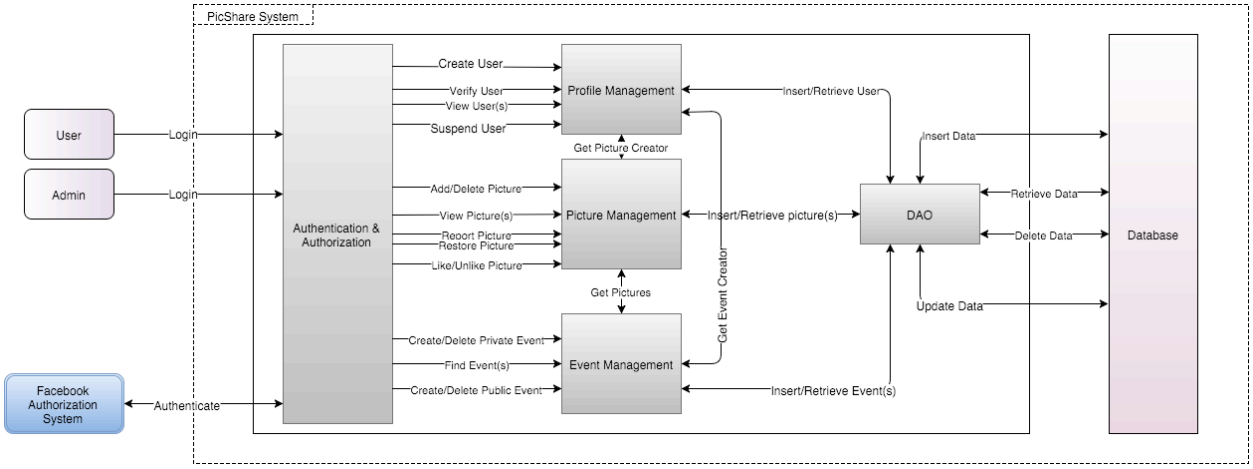


**Figure 4: Element Relationship Diagram**

### 3.3.2 Business Workflows

Since we have a lot of workflows for user, we picked three major ones, which are as follows:

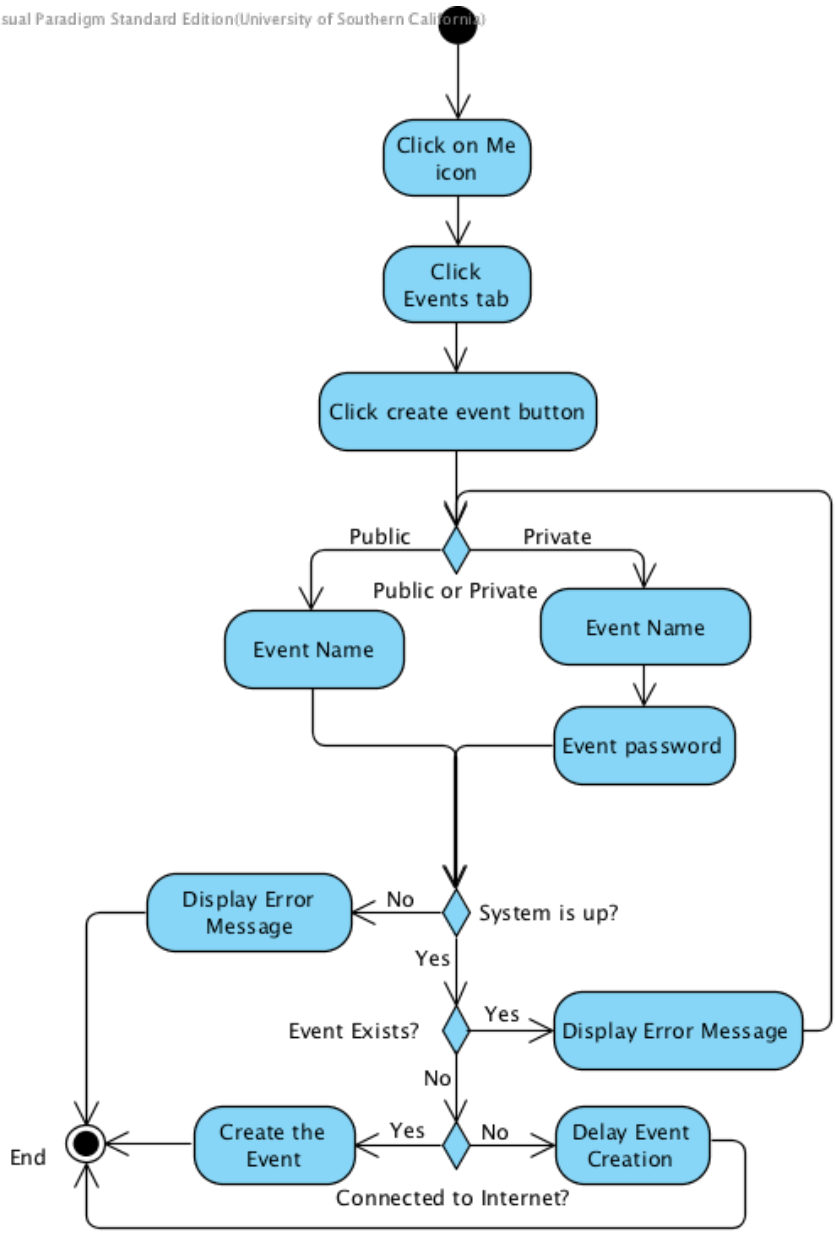


**Figure 5: Business Workflow: Create Event**

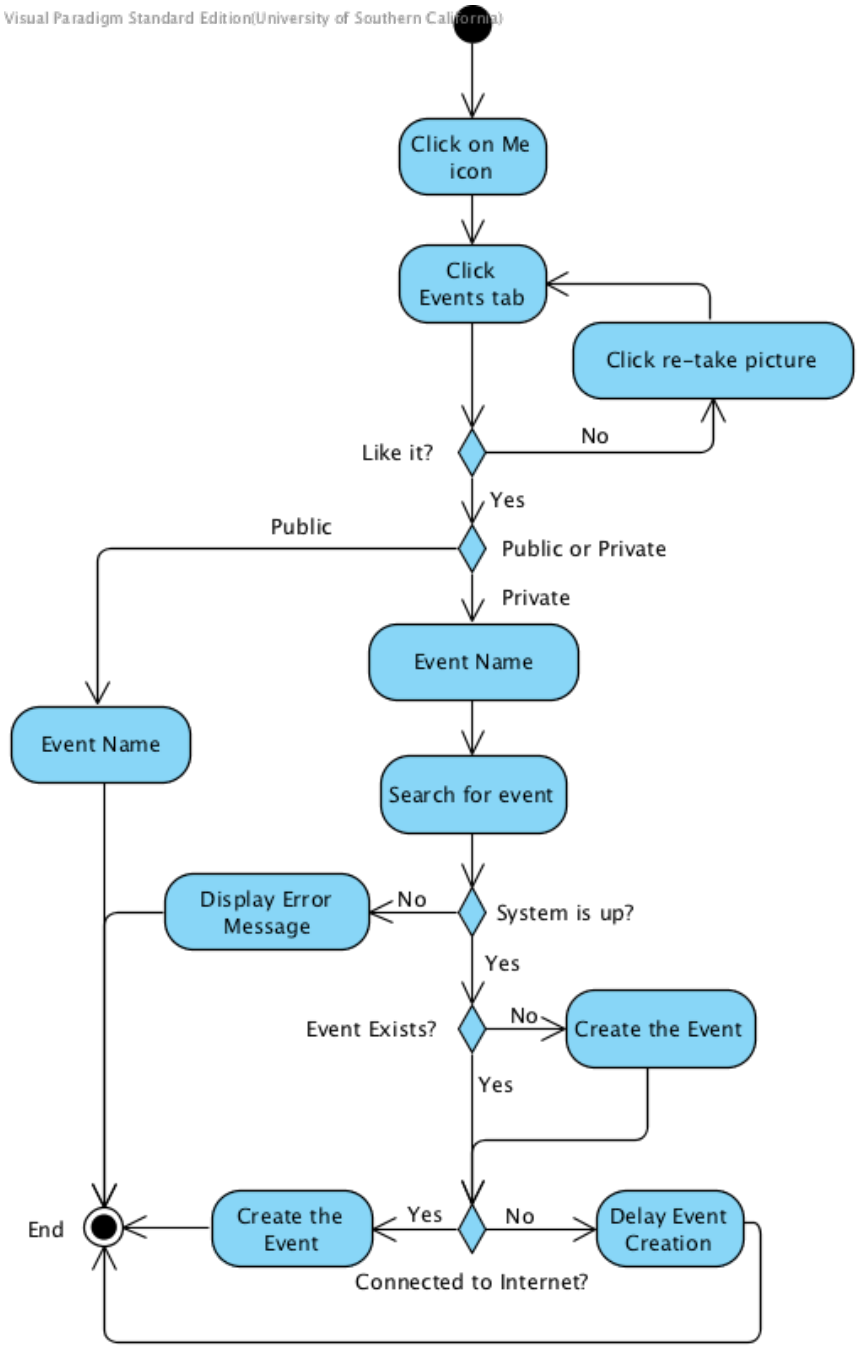


**Figure 6: Business Workflow: Share Picture to Event**

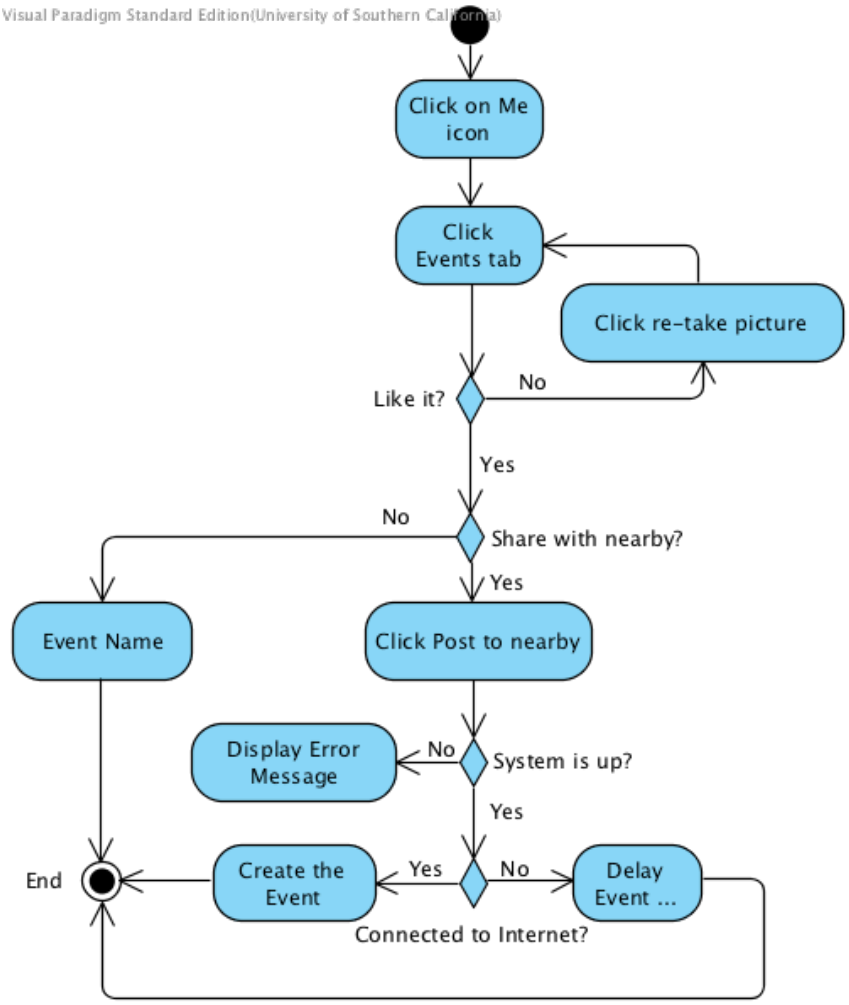


**Figure 7: Business Workflow: Share Picture to Nearby Location**

# 3.4 Organizational and Operational Implications

## 3.4.1 Organizational Transformations

- The need to hire new developers and maintainers to maintain the system and incrementally implement new features.

## 3.4.2 Operational Transformations

- Create a proper plan and assign responsible personnel for the following:
  - Security testing plan, to keep system up-to-date against the security flaws
  - Performance check plan for the system, to choose the proper time for software/hardware upgrade.
  - A budget plan to ensure the profitability of the business.