Operational Concept Description (OCD)

E-Lockbox

Team 8

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Version History

Date	Author	Version	Changes made	Rationale
10/09/14	Xiaochen Wang	1.0	• First Version of OCD	• To build operational concepts for team 8 to deliver the e-lockbox system
10/16/2014	Xiaochen Wang	1.1	• Updated Program Model • Updated Benefit Chain Diagram • Updated Service Goals for new system	• To build operational concepts for team 8 to deliver the e-lockbox system
11/28/2014	Xiaochen Wang	1.2	• Updated Workflows	• To build operational concepts for team 8 to deliver the e-lockbox system

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1. Introduction

1.1 Purpose of the OCD

This document provides, in detail, the shared visions and goals of the stakeholders for the e-lockbox system of Living Advantage. The success-critical stakeholders of the project are Pamela R. Clay, as the project owner; Janice Elizabeth Kreh, as one of the case managers working for Living Advantage; the foster youth, as users; CSCi577 Team 8, as the developer.

1.2 Status of the OCD

The status of the OCD is currently at the version 1.2 in the Development phase. The Workflow diagrams for new system have been updated in order to provide more precise information about operational concept.

2. Shared Vision

Table 1: The Program Model

Assumptions			
• **People will use the system & find it to be more usable and secure than before.**			
Stakeholders (Who is accountable for the initiatives)	**Initiatives** (What to do to realize benefits)	**Value Propositions** (Benefits i.e Why)	**Beneficiaries** (Who derives value)
• Developer • Living Advantage (Staff & Maintainer) • Youth User	• Develop the system • Train administrators, case managers about usage and maintenance	• Increased time savings • Easier access for youth to their documents • Improved security and usability	• Youth User • Living Advantage

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2.1 Benefits Chain

Assumptions:
- People will use the system & find it to be more usable and secure than before.

Developers

Living Advantages (stuff and maintainers)

Youth User

Develop the system

Train staff and maintainers about usage and maintenance

Improved security and usability

Increased time savings

Easier access for youth to their documents

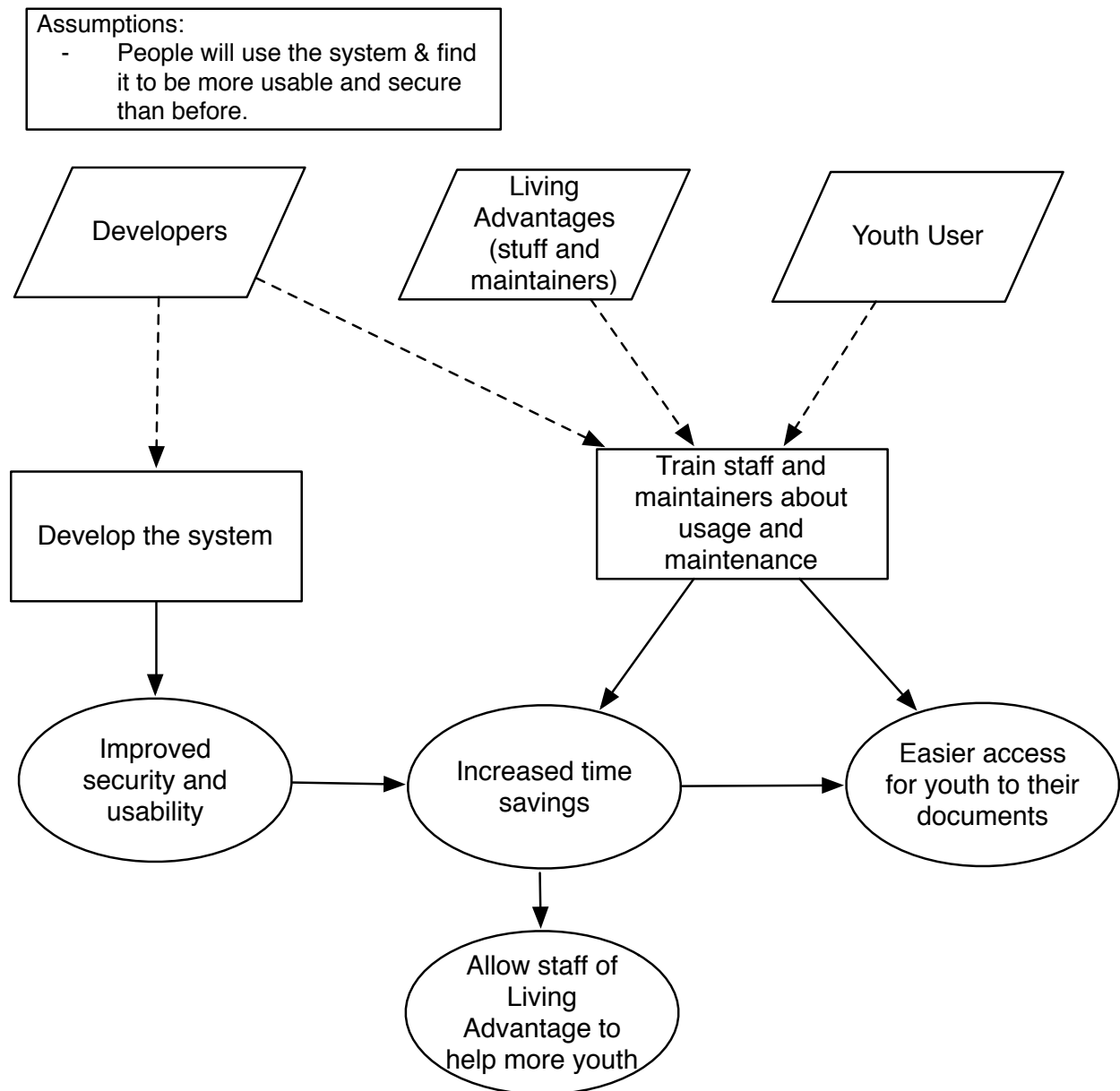Allow staff of Living Advantage to help more youth

Figure 1: Benefits Chain Diagram

2.2 System Capability Description

- The type of system to be built

    Put simply, the E-Lockbox is a web-based document management system. All its users will obtain service from the website.

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The admins and case managers in Living Advantage will login the system to manage cases and youth's documents, and generate administrative logs. The youth can login the system to access to their documents.

- The target customer(s) for the system

The main purpose of our system E-Lockbox is to help employees working at Living Advantage manage documents securely and conveniently.

The target customer for the system is Living Advantage.

- A compelling reason for the customer to use the system

Now the staffs working for Living Advantage do most of their work through Salesforce.com, however Salesforce does not provide report-generating service with the current package. Thus they have to do this manually, which takes a lot of time and effort. And all the case managers share the same account, so it is hard to restrict each case manager's domain.

Currently the youth have to go to the Living Advantage office to request for copies of their documents. This is an inconvenience and waste of time for both staff and youth.

By using E-Lockbox, Living Advantage and youth will youth will benefit by having secure and convenient access to their records.

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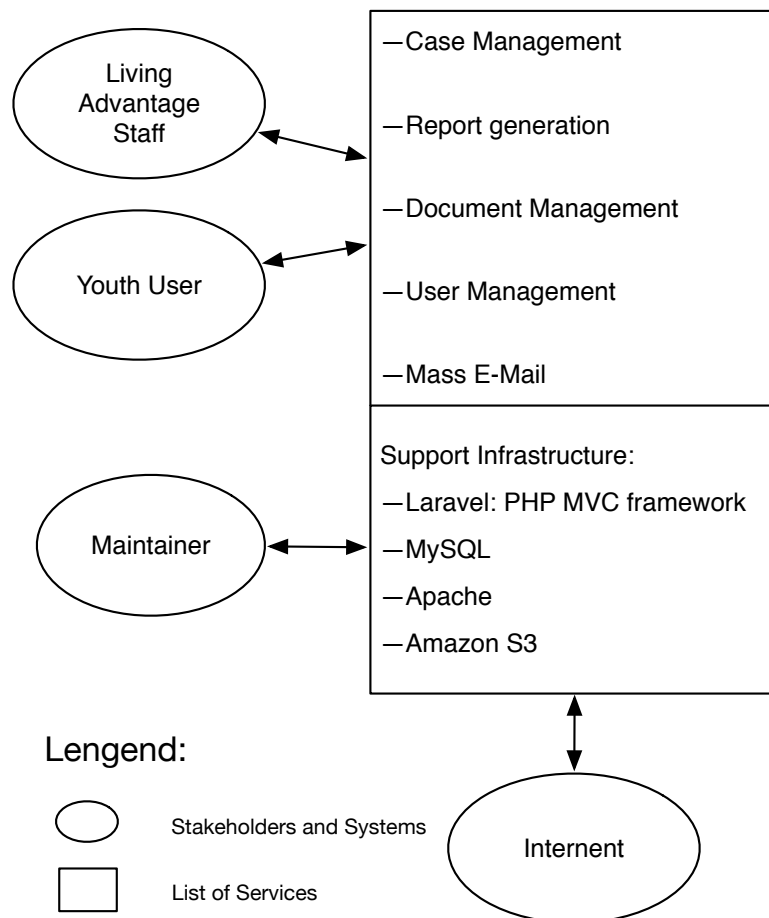
Figure 2: System Boundary and Environment Diagram

3. System Transformation

3.1 Information on Current System

3.1.1 Infrastructure

Living Advantage already has an e-Lockbox system. Currently, the system can provide 3-5 pieces of vital life documents for up to 500 clients. However, it is implemented on Salesforce.com, which is a global cloud computing company, best known for its customer relationship management (CRM) product. Salesforce.com migrated to Dell servers with AMD processors running Linux from Sun Fire E25K servers with SPARC processors running Solaris. Salesforce.com is providing software and hardware support for Living Advantage.

Last year's CSCI577 team 5 has developed an e-Lockbox system, however that system was not secure enough according to our client and so it was never put to use. Our team will update the UI design and secure the system developed last year.

3.1.2 Artifacts

Table 2: Artifacts

Artifact	Description
Current database	Current youth information and their corresponding documents stored in Saleforce.com.
Documents forms	Templates of online forms on Salesforce.com

3.1.3 Current Business Workflow

Document Uploading Workflow
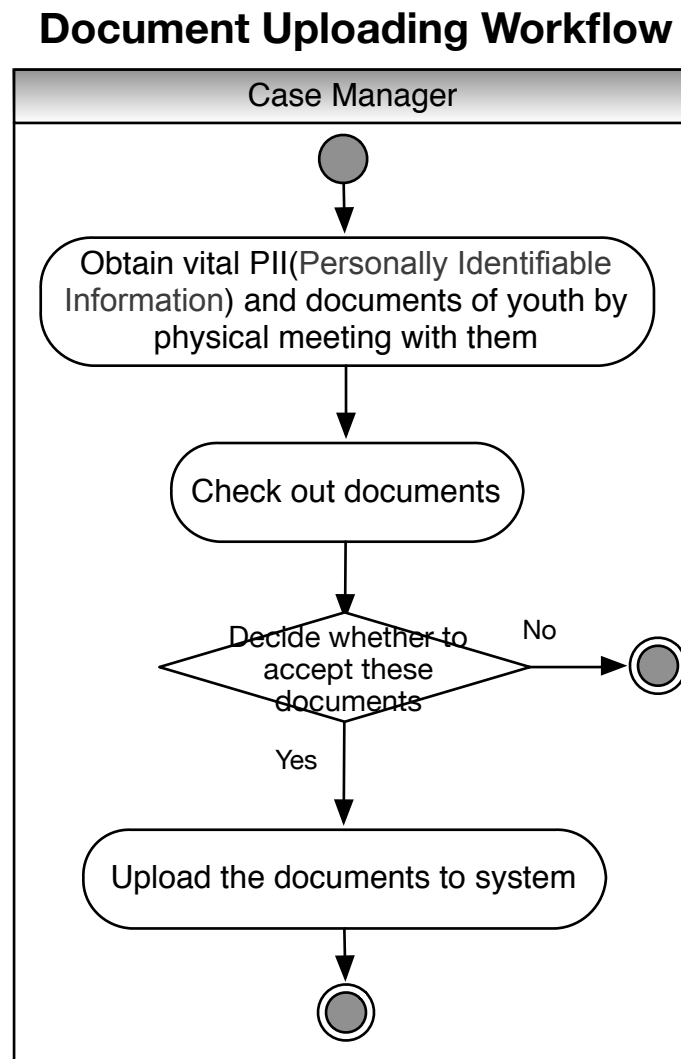
Figure 3: Current Business Workflow for document uploading

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Case Registration Workflow

Case Manager	Foster Youth

Review Registion

Register at office

Decide whether to accept this registion — No

Yes

Accept this case

Receive rejection

Login the system

Create a new case
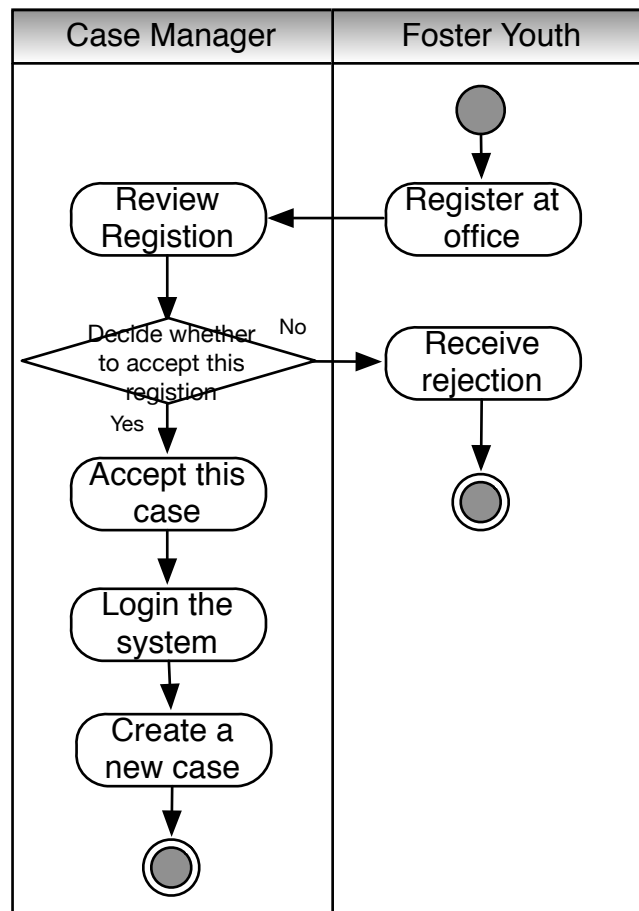
Figure 4: Current Business Workflow for case registration

Document Request Workflow
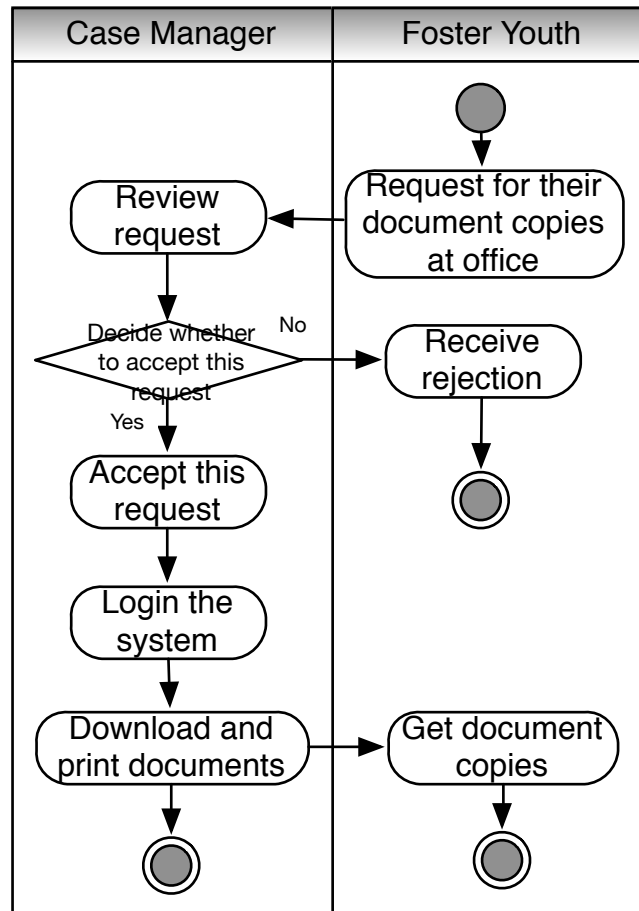
Figure 5: Current Business Workflow for document request

3.2 System Objectives, Constraints and Priorities

3.2.1 Capability Goals

Table 3: Capability Goals

Capability Goals	Priority Level
OC-1 Document Management: Vital documents can be 1) Viewed and printed via accessing the system by foster youth and assistants or 2) Scanned and uploaded by case managers or administrators.	Must Have

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OC-2 Case Management: Administrator can manager all cases. Case managers can manage cases in their scope. Assistants can view all cases, but cannot edit anything.	Must have
OC-3 Report Generation: The system is capable of generating the report of demographic and activity information.	Must have
OC-4 User Management: Administrators will be able to manage all kinds of users. Case manager can manager the users in their scope.	Must have
OC-5 Mass Email: Administrators and case managers can send mass e-mails to youth. And system can automatically record such activity.	Should have

3.2.2 Level of Service Goals

Table 4: Level of Service Goals

Level of Service Goals	Priority Level	Referred WinWin Agreements
LOS-1: Usability: The system shall be easy to use for kids and case managers. The usability can be tested by questionnaire and actual operation.	Must have	Win-Condition 3326 Win-Condition 3325 Win-Condition 3324
LOS-2: Data Size: This system should support large data. [Currently, the Living Advantage has 353 kids, each kid has at most 7 documents stored on e-Lockbox system, and each document is about 1MB, thus the total storage is around 2.5GB. Since Living Advantage predicts to have more foster youth in the future, they prefer to limit the storage capability for each case to be no more 15 documents. Suppose each document can be no more than 3MB, and there are 1000 kids, the total expected storage for documents will be no more than 44GB. Plus the storage for administrative activities, the total storage should be around 50GB.]	Must have	Win-Condition 3329 Win-Condition 3328
LOS-3: Security: All the	Must have	Win-Condition 3330

documents must be stored securely. The security specification should include login-control, system-access-control, documents-storage and so on.		

3.2.3 Organizational Goals

OG-1: Increased time savings

OG-2: Easier access for youth to their documents

OG-3: Improved security and usability

3.2.4 Constraints

We have to do development work based on previous system, which was developed last year. Thus we have constraints in the following area.

CO -1: PHP as a Development Language

CO -2: MySQL as DBMS

CO -3: Amazon S3 as Storage for documents

3.2.5 Relation to Current System

Table 5: Relation to Current System

Capabilities	Current System	New System
Roles and Responsibilities	Maintained by Salesforce.com	Have Living Advantage staff maintain system including database
User Interactions	Thy system cannot generate demographic information of foster youth.	Case managers can generate demographic information according to their different needs.
Infrastructure	Under the service of Salesforce.com	Living Advantage will have its own software system.
Stakeholder Essentials and Amenities	Current system is a complex and paid, thus difficult to satisfy their specific needs.	Owning their system, they can have specific feature as they want with less money.
Future Capabilities	This system only satisfies part of requirements of Living Advantage.	The system will be customized by Living Advantage.

3.3 Proposed New Operational Concept
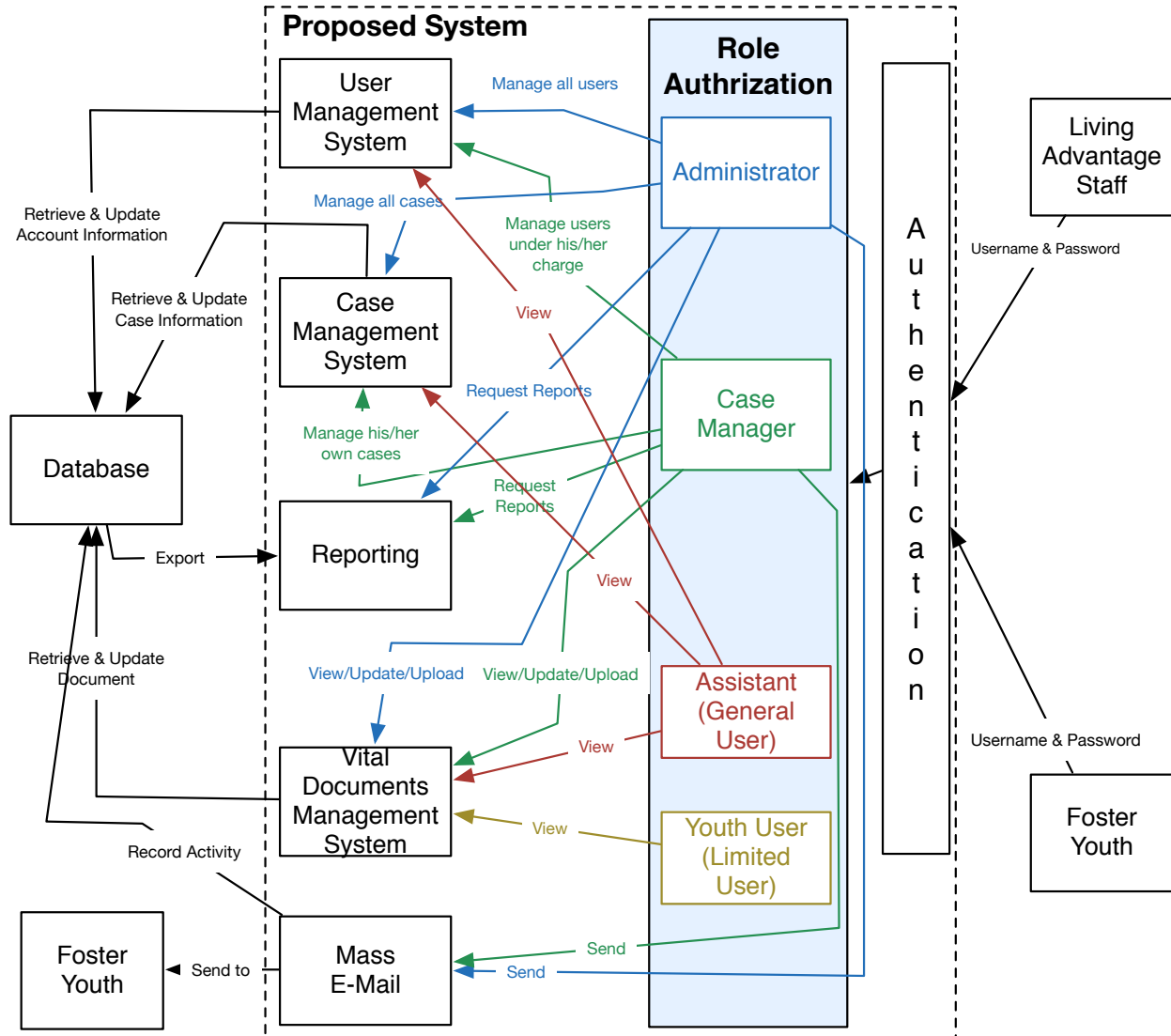
3.3.1 Element Relationship Diagram

Figure 6: Element Relationship Diagram

3.3.2 Business Workflows
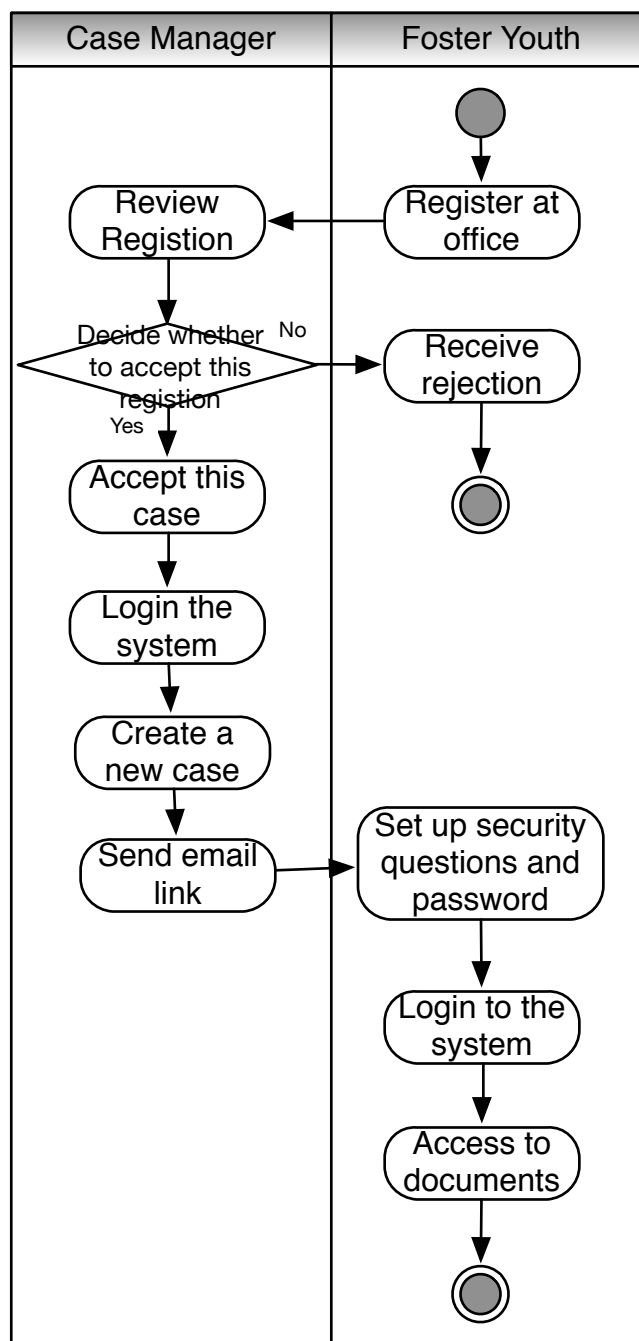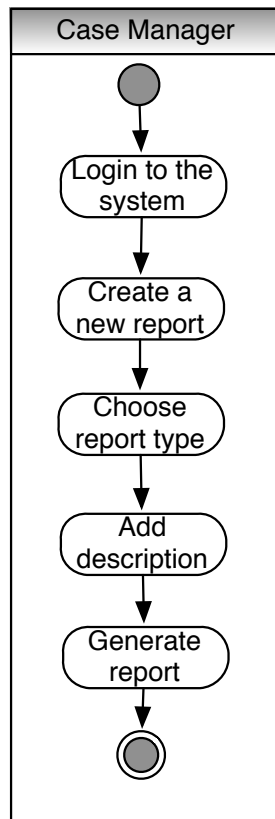
Account Assignment Workflow

Case Manager	Foster Youth

Review Registion

Register at office

Decide whether to accept this registion — No → Receive rejection

Yes

Accept this case

Login the system

Create a new case

Send email link → Set up security questions and password

Login to the system

Access to documents

Figure 7: Business Workflows Diagram for account assignment

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Report Generation Workflow

Figure 8: Business Workflows Diagram for report generation
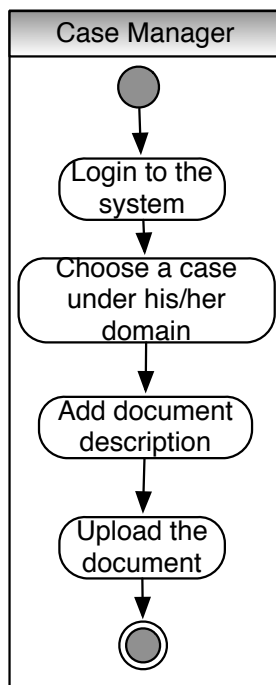
Document Uploading Workflow

Case Manager

Login to the system

Choose a case under his/her domain

Add document description

Upload the document

Figure 9: Business Workflows Diagram for document uploading

Mass E-Mail Workflow

Case Manager

Login to the system

Choose a group of youth
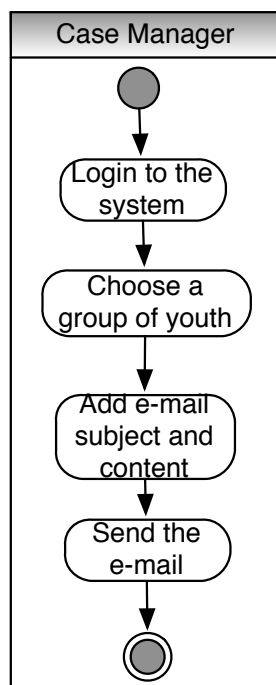
Add e-mail subject and content

Send the e-mail

Figure 10: Business Workflows Diagram for sending mass e-mail

3.4 Organizational and Operational Implications

3.4.1 Organizational Transformations

- Living Advantage needs to assign maintainers to take care of the system.
- Living Advantage can be relieved from current, hard-use, time-consuming and limited E-Lockbox system

3.4.2 Operational Transformations

- Foster youth can be assigned accounts to access, view and print their own documents.
- Case managers can generate demographic report of foster youth.
- Admins and case managers can design and send electronic questionnaire for youth users.
- Admins and case managers can send e-mail to youth through the new system.