Operational Concept Description (OCD)

Cash Doctor 3.0

Team 12

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Version History

Date	Author	Version	Changes made	Rationale
09/19/14	XW	1.0	• Original template for use with CS577a • Added 1.1 1.2	• Initial draft for use with CS577a
09/19/14	XW	1.1	• Added section 3.1 • Added section 3.2	• Section 3.2 was added to provide traceability for the outcome in the Benefits Chain
09/25/14	SH	1.2	• Added section 2.1	• Initial information from current system
09/27/14	SH	1.3	• Added section 2.2 2.3	• Initial information from current system
09/28/14	XW	1.4	• Updated section 3.1.3	• Fix the current workflow
10/01/14	SS, KK	1.5	• Added section 3.3	• Initial draft of new system
10/10/14	XW	1.6	• Updated section 1.2 • Added section 3.4	• Updated the status of OCD • Initial the transformation condition

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1. Introduction

1.1 Purpose of the OCD

This document provide a operational concept of Cash Doctor 3.0, which includes the success-critical stakeholders' shared vision, expected benefits of the system, objectives, constraints, current and new workflows, new operational concepts, goals and organizational and operational transformations. Clients and developers reached this mutual understanding together.

The success-critical stakeholders of this project include:
- Consumers: the individuals who are going to use this app.
- Corporations: the corporations or organizations that going to encourage their employee to use this app.
- Cash Doctor: the service provider and maintainer.
- Student team: developers
- Healthcare Providers: provide healthcare information for Cash Doctor 3.0

1.2 Status of the OCD

All sections of OCD have already been completed at this point. This vision of OCR will be a core document of Foundations Commitment Package. Future it will works as a guideline during development and it will be periodically updated to reflect the latest state of project.

2. Shared Vision

Table 1 The Program Model

ASSUMPTIONS
• Users will share info and provide reviews.
• Corporations will push their employees to use it via incentives.
• People will move away from insurance providers if it saves them money.
• Providers will benefit from using cash.
• Providers will use the system.

Stakeholders (Who?)	Initiatives (What?)	Value Proposition (Why?)	Beneficiaries (For Whom?)

• Developers
• Cash doctor
	• Develop the system (for price & review/rating).
	• Market the app/system
	  • Corporate marketing strategy.
	  • Individual marketing strategy.
	  • Provider marketing strategy.
		• Increase price transparency of health care costs.
		• Increased time and dollar savings for patients and healthcare consumers in general.
		• Empowering the consumer to make a more educated choice about healthcare expenditures
		• Enable consumers/patients to evaluate or provide feedback on healthcare services for community benefit.
		• Revolutionize the industry and profit.
			• Healthcare consumers - individual and corporate.
			• Health care providers.
			• Cash doctor (includes student team)

Cost	Benefits
• Development time (in person-hours) • Hardware • Software • Network	• Consumers and corporations save money • Consumers have access to healthcare, information, and networks (intangible) • Doctors make more money

• Maintenance
• Miscellaneous
	• Usage
	   o Registered users
	   o Downloads
	   o Rate of access
	   o Rate of sharing
	• Time saved in finding coverage

2.1 Benefits Chain
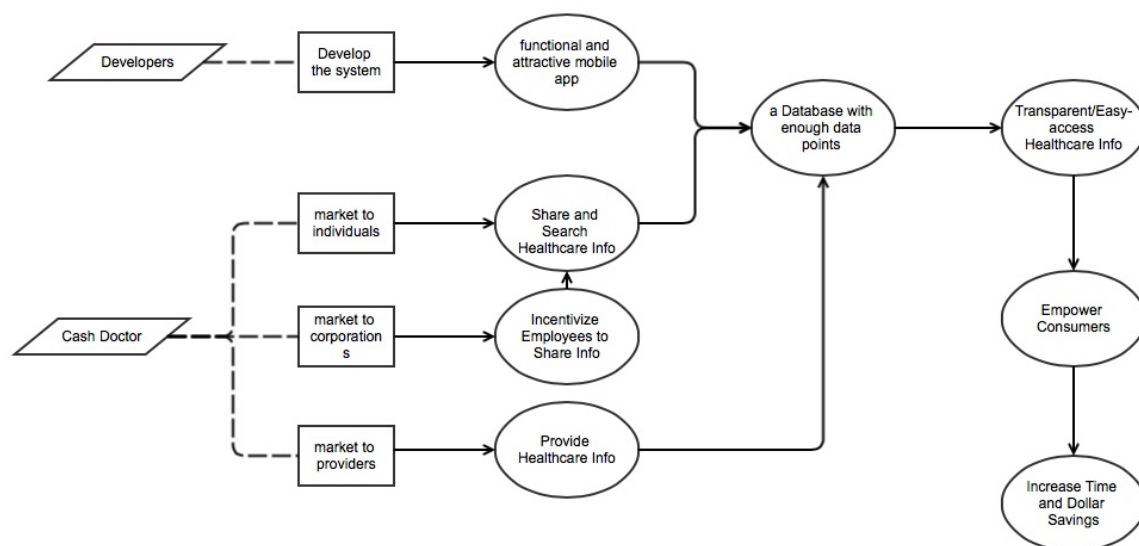
Figure 1 Benefits Chain of Cash Doctor 3.0

2.2 System Capability Description

- A mobile application that allows users to search and share healthcare information about location, code, price and specialty.
- Individual consumers who are looking for or sharing healthcare information are the target users of this application.
- Consumers will find a more efficient way to find cheaper healthcare services by using this application. Besides, corporations would reduce their cost by encouraging their employees

to use this application. Healthcare providers would also benefit form this application by attracting more customers.

- The telephone doctor services are the closet competitor of cash Doctor.
- Cash Doctor could help consumers to search and compare healthcare price, and keep updated from healthcare provider, which would makes it more competitive than telephone doctor.

2.3 System Boundary and Environment
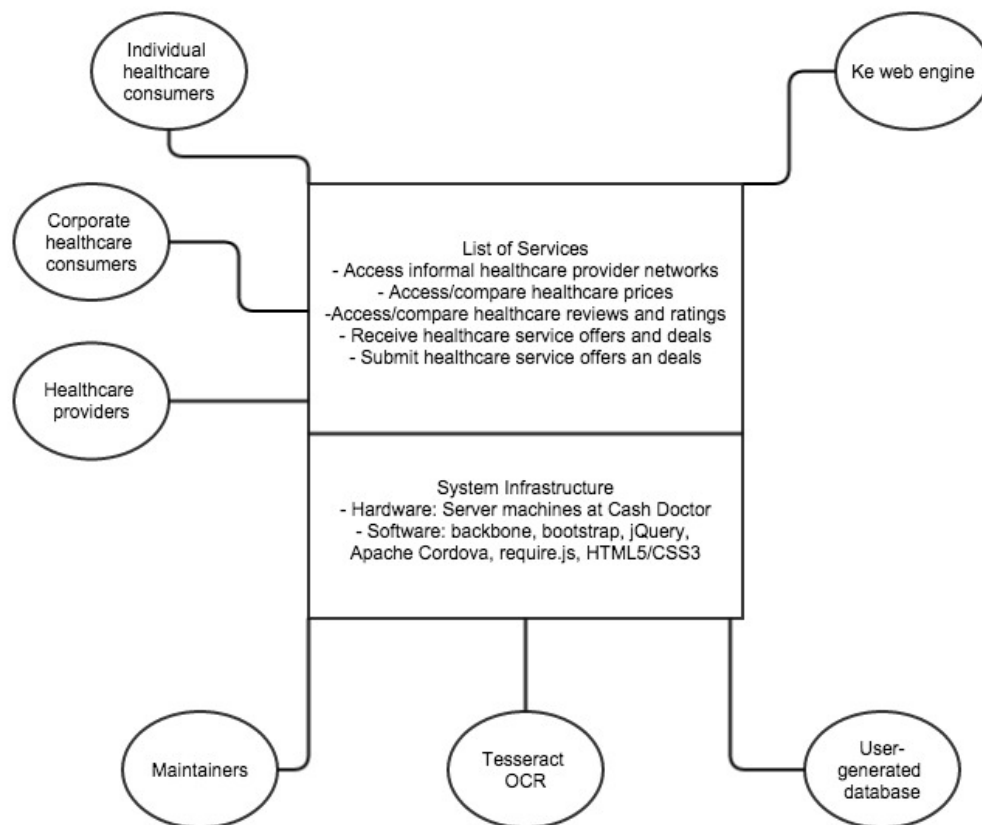
Figure 2 System Boundary and Environment Diagram of Cash Doctor 3.0

3. System Transformation

3.1 Information on Current System

3.1.1 Infrastructure

Software:
Web Engine: Ke
Proprietary CMS
Technologies: HTML5, CSS3, Backbone.js, Require.js, jQuery, jQuery Mobile, Bootstrap
Integration Architecture: Apache Cordova
Database: SQL Server

Table 2 The hardware

Component	Minimum	Recommended
Processor	2.9 gigahertz (GHz) or faster x86- or x64-bit dual core processor with SSE2 instruction set	3.3 gigahertz (GHz) or faster 64-bit dual core processor with SSE2 instruction set and 3 MB or more L3 cache
Memory	2-GB RAM	4-GB RAM or more
Display	Super VGA with a resolution of 1024 x 768	Super VGA with a resolution of 1024 x 768

Network:

- Bandwidth greater than 50 KBps
- Latency under 150 ms

3.1.2 Artifacts

Table 3 Artifacts

| Artifact	Description	Status	Planned delivery date
Overall Project Description	Brief analysis about the healthcare industry and the opportunity and challenge about Cash Doctor.	Received from client	N/A
Overall Requirement Description	Brief Description about target functions about this app.	Received from client	N/A
Technique Description	Description about database structure, development environment, etc.	Received from client	N/A

3.1.3 Current Business Workflow
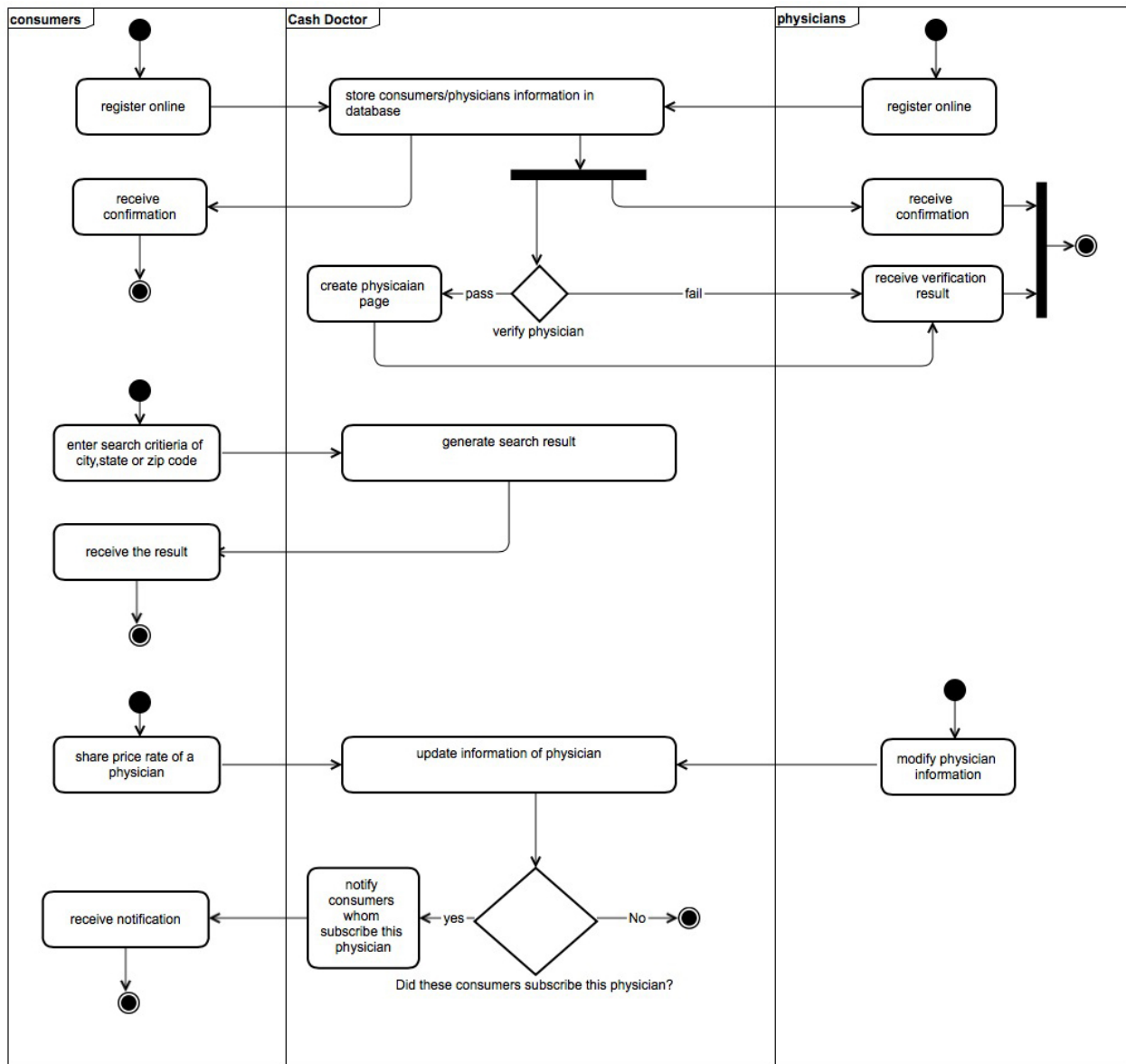
Figure 3 Current Business Workflow of Cash Doctor 2.0

3.2 System Objectives, Constraints and Priorities

3.2.1 Capability Goals

Table 4 Capability Goals

Capability Goals	Priority Level
OC-1 Manual Information Search: The application should enable consumers to search healthcare information by imputing location, code, price and specialty.	Must have
OC-2 Geo-Location Search: The application should be able to find consumers' location and show relevant providers around.	Must have
OC-3 Price Comparison: The application should enable consumers to compare price between different providers.	Must have
OC-4 User Registration: The application should enable consumers to register as a user.	Must have
OC-5 Price Sharing: The application should enable users to share healthcare services price by manually imputing or capturing invoice.	Must have
OC-6 Provider Rating: The application should enable users to rate providers and create a review.	Must have
OC-7 Networking: The application should enable users to create a private network and join existing networks.	Must have
OC-7 Profile Management: The application should enable users to create and manage a health profile.	Must have
OC-8 Notification Management: The application should enable users to subscribe form providers to get update notifications. And it also allows users to filter notifications.	Must have

3.2.2 Level of Service Goals

Table 5 Level of Service

Level of Service Goals	Priority Level	Referred WinWin Agreements
LOS-1 Number of users: System should be able to support at least 1000 simultaneous users.	Must have	WC_3080

3.2.3 Organizational Goals

OC-1: Increase the price transparency for all healthcare services consumers.

OC-2: Increase sales for Healthcare provider.

OC-3: Reduce costs for corporations who pay healthcare bills for their employees.

3.2.4 Constraints

OC-1 Operating System: the new application must be able to run on IOS, Android and windows phone.
OC-2 Deliver time: the application must be delivered at the end of next semester (spring 2015).

3.2.5 Relation to Current System

Table 6 Relation to Current System

Capabilities	Current System	New System
Roles and Responsibilities	Corporations do not involve in current system.	Corporations encourage their employees to use cash doc and they benefit from it by reducing costs
User Interactions	Web based system	Mobile app based system
Infrastructure	N/A	N/A
Stakeholder Essentials and Amenities	-Users have to search on website and manually input to share price. -Providers could only update their webpage to promote and advertise.	-It is much easier for users to search on smart phones. -Implementing OCR makes it much easier for users to share price. -Notifications make providers easier to advertise themselves.
Future Capabilities	N/A	Providers can push notifications to users. And users can subscribe from providers to keep updating. And users could filter notification.

3.3 Proposed New Operational Concept
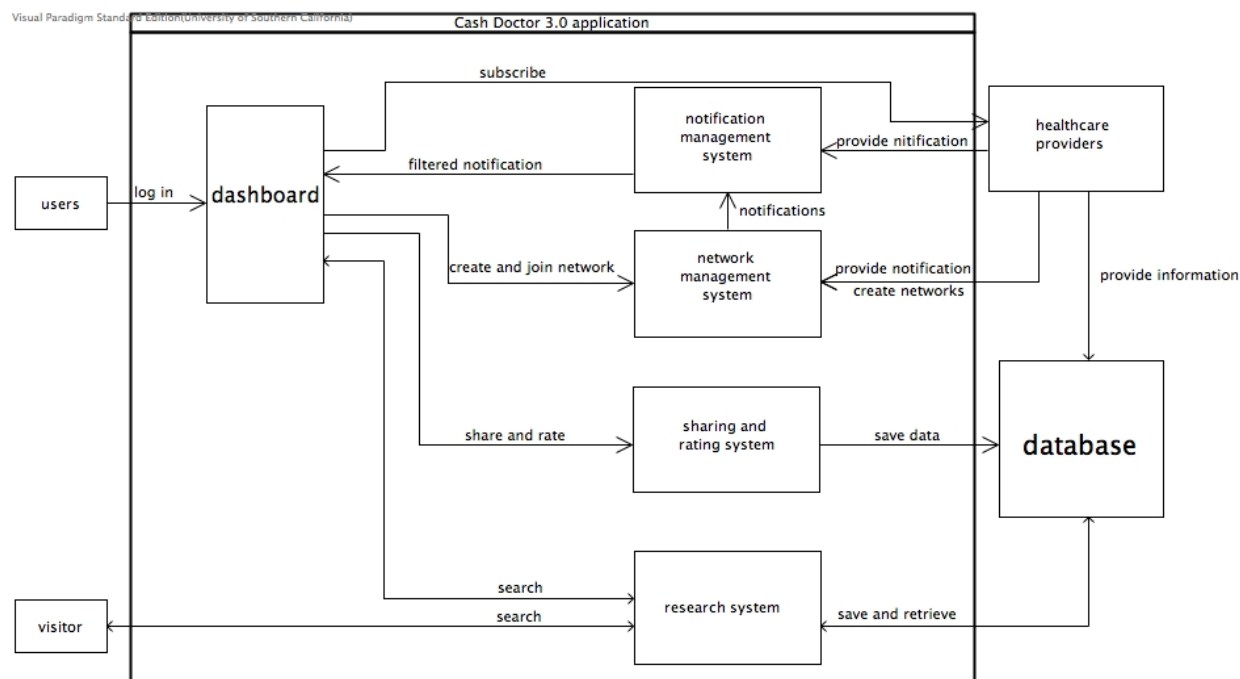
3.3.1 Element Relationship Diagram

Figure 4 Element Relationship Diagram of Cash Doctor 3.0
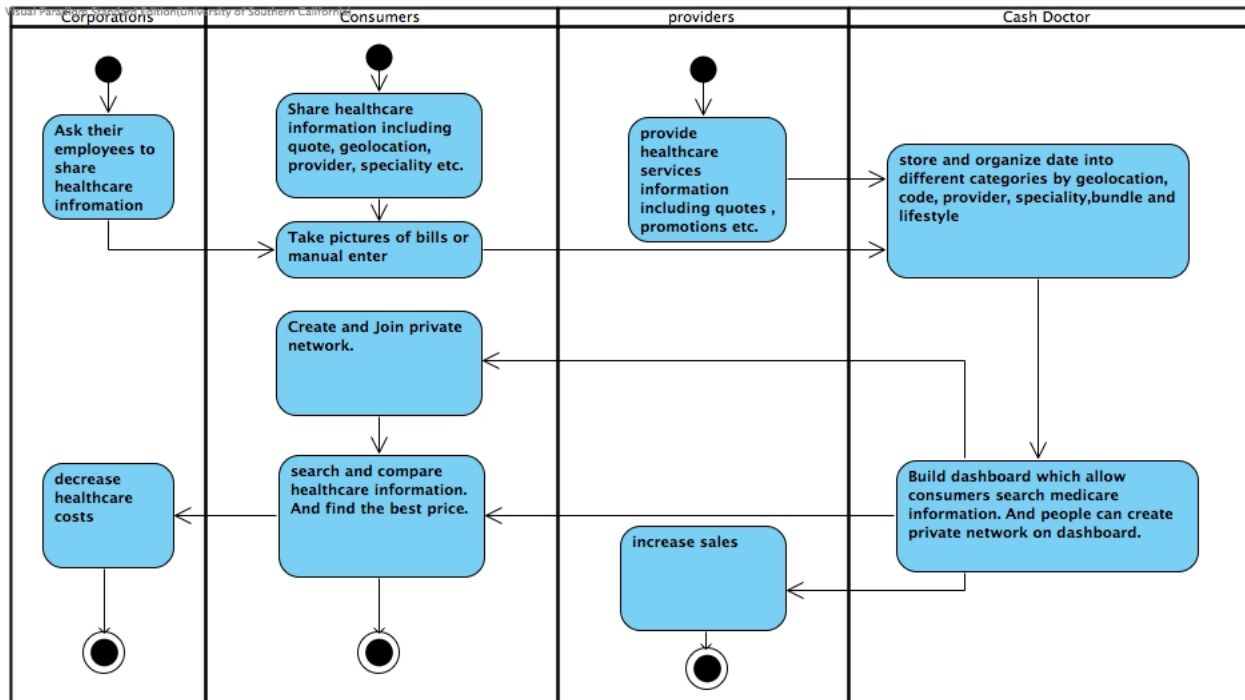
3.3.2 Business Workflows

Figure 5 Business Workflow Diagram of Cash Doctor 3.0

3.4 Organizational and Operational Implications

3.4.1 Organizational Transformations

- The need to hire a maintainer to maintain the mobile system.
- The need to market target on corporations.

3.4.2 Operational Transformations

- An option is available for healthcare providers to create networks to attract and stay connect with consumers.
- An option is available for corporations to save costs by encouraging their employees to use cash doctor.