Operational Concept Description (OCD)

Discovery Tool

Team 3

Josh Bendig - IIV&V

Xizhao Deng - Project manager

Jingzhou Hong - Requirement Engineer

Guancheng Liu - Tester

Michael Russo - Prototyper

Shenghao Tang - Feasibility Analyst

Fan Zhan - Software Architect

Yiming Zhang - System Architect

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Version History

Date	Author	Version	Changes made	Rationale
10/15/18	XD	1.0	Section 1,2,3	Initial draft for Discovery Tool OCD of DC package
10/16/18	JB	1.1	figures 1-5	Added figures 1-5

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1. Introduction

1.1 Purpose of the OCD

This document has the following objectives:
1. Describe, in detail, the shared vision and goals of the stakeholders of the idea management system for System1.
2. It will be used to obtain consensus between the client and dev team.

The success-critical stakeholders of the projects are:
1. System1 Content Writer, who would use this tool to streamline their existing procedure and speed up content production.
2. System1 Content Admin, who would use this tool to serve similar purpose as the content writer, plus scaling the project and team with more confidence.
3. Developers: Students of CSCI577A F18 Team 3, who would be building this system.
4. Maintainers: Potential technical personnels from System1, who would maintain and continue the development and integration after the project is handed over.

1.2 Status of the OCD

The status of the OCD is currently at the initial draft stage of version 1.0. There are no previous versions to this project. The scope of the discovery tool project, which started as a trend identifier system, has been re-evaluated and pivoted to idea management system. The change of direction was proposed by the client and has gained consensus from all the stakeholders.

2. Shared Vision

Assumptions
● System1 content writers and admins are willing to migrate to a new idea management tool
● The new idea management tool will be able to adequately support System1's formulation process end-to-end to effectively migrate the system
● Client will have maintainers on staff to take over the project upon handoff
● Development team will have access to sufficient resources to host the tool and store its data
● System1 access to the internet to connect to the tool

Stakeholders	Initiatives	Value Propositions	Beneficiaries

-System1 Content Writer(User) -System1 Content admin(User) -System1 Maintainer -Developers	-Content writer and admin correctly use the app -Maintainers maintain the whole system after handoff occured -Admin and content writer are responsive to the different stages of content production -Developers implement system to mimic and streamline existing process	-Increased publication speed -Modernized frontend and backend technology -Streamlined process with real-time feedback -Ease of scaling the project and team size -Monitoring team progress and performance with confidence	-System1 Content writer -System1 Content admin
Cost			
• Development costs • Database hosting service costs • Maintenance costs			

Table 1: The Program Model
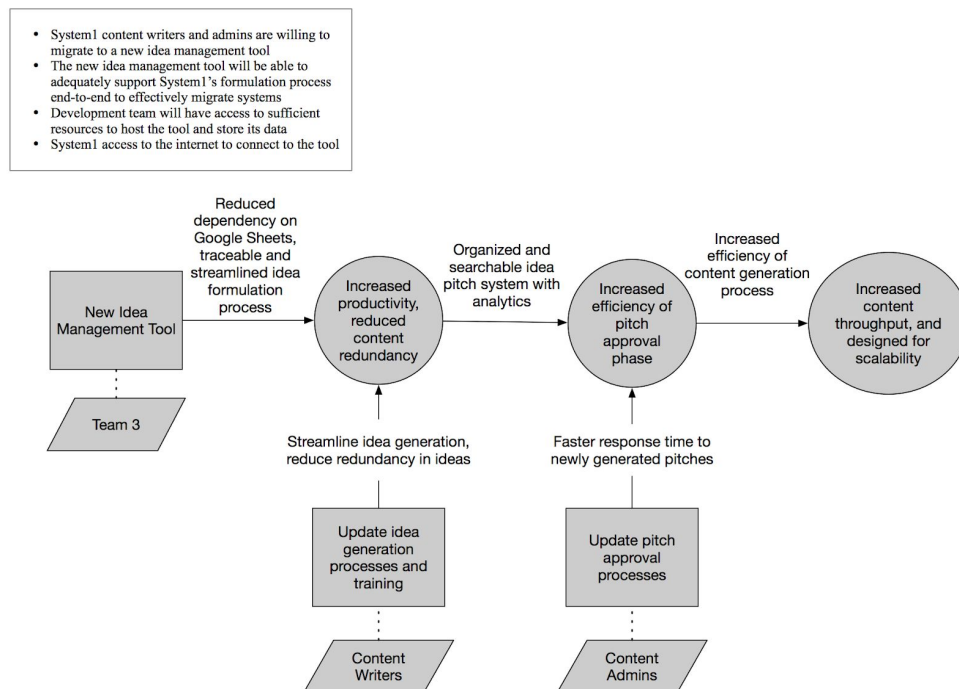
2.1 Benefits Chain

Figure 1: Benefits Chain Diagram

2.2 System Capability Description

Discovery Tool is an web app based idea management system. It serves as an internal tool to System1. It provides a solution to help System1 content writers and admins to streamline, manage, accelerate their workflow. It gives the admins necessary tooling to quickly scale the team as well as content production. Overall, the system supports the team to work cross-functionally, leveraging resources to meet needs as efficiently as possible. Currently there's no competitor identified so far.
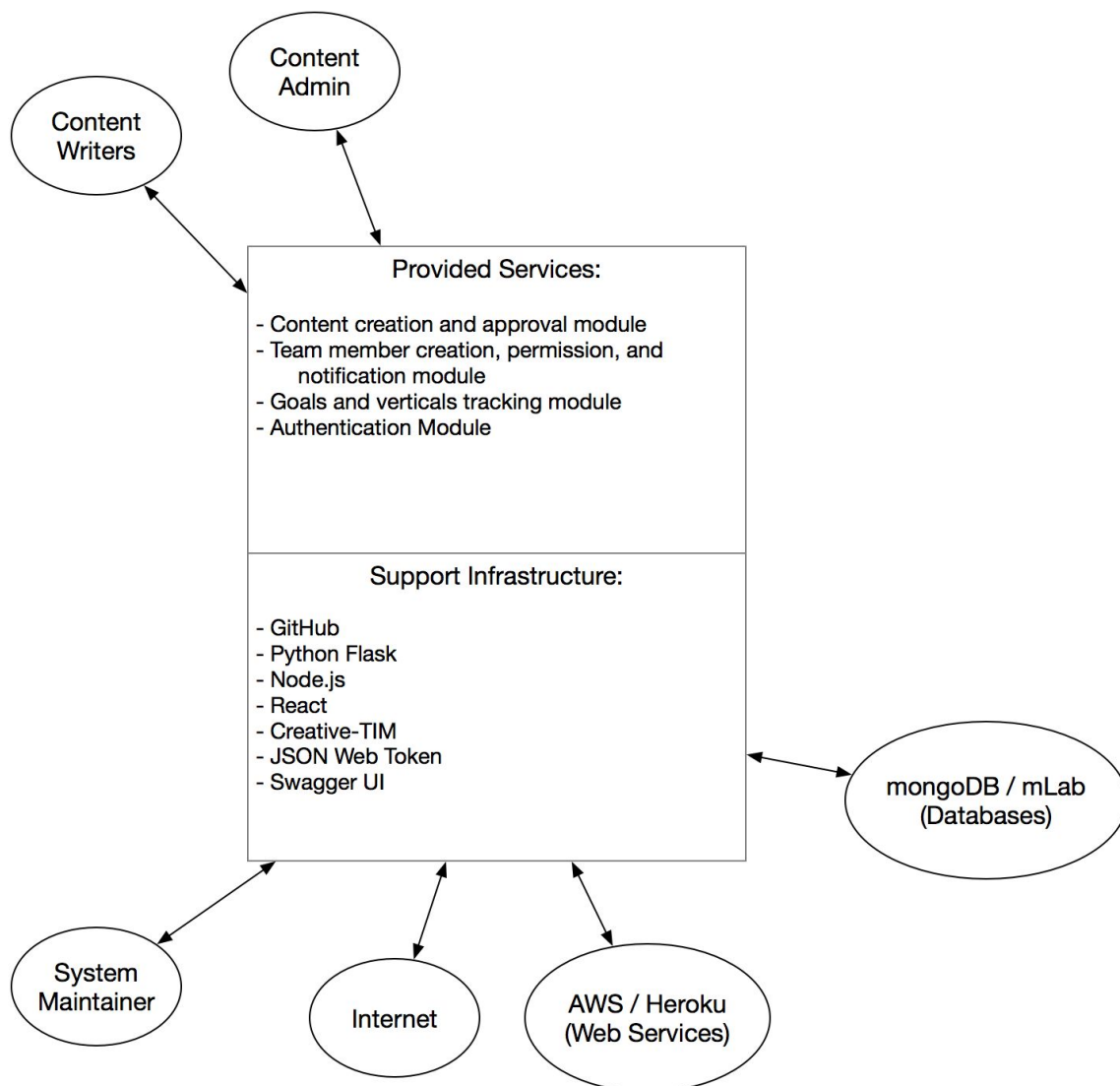
2.3 System Boundary and Environment

Figure 2: System Boundary and Environment Diagram

3. System Transformation

3.1 Information on Current System

3.1.1 Infrastructure

Currently, there is no existing idea management system in place at System1. This is the first initiative. The client performs the idea management task by manually managing several spreadsheets used across the whole team.

3.1.2 Artifacts

Currently, the spreadsheets are maintained on client's cloud server. Our idea management web app will be hosted on AWS EC2 in production.
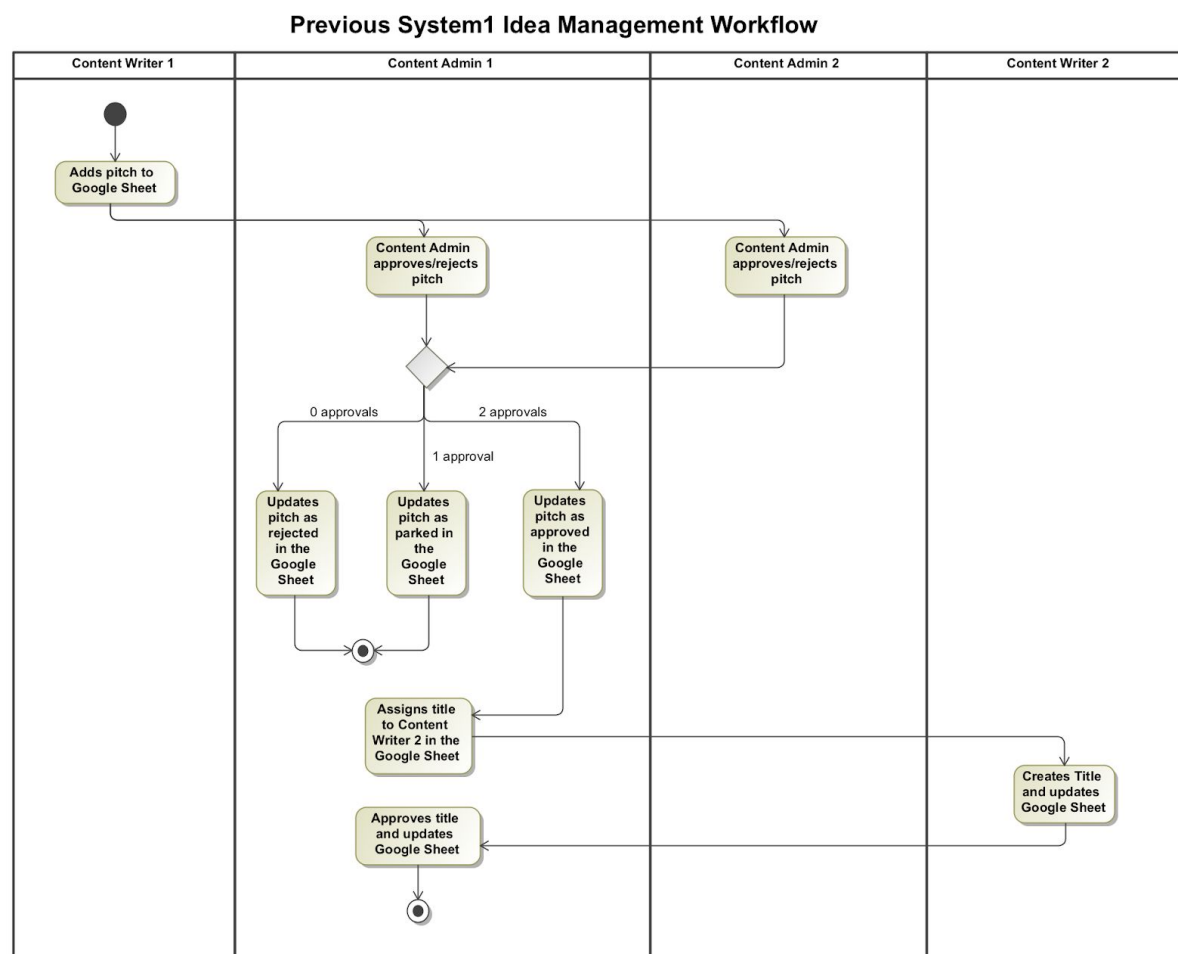
3.1.3 Current Business Workflow

Figure 3: Current Workflow Diagram

3.2 System Objectives, Constraints and Priorities

3.2.1 Capability Goals

Capability Goals	Priority Level
OC-1 Login page: users can log into the session with their credentials	High
OC-2 Content writer home page: writer can view overall project progress, individual vertical progress, and targets of the past, current, or future months	High
OC-3 Content writer draft board: writer can draft an idea then pitch it for approval	High
OC-4 Content writer global pitch board: writer can view pitch details, and upvote pitches with high content creation value	High
OC-5 Content writer local title board: Shows all titles assigned to current writer. Writer can create title for a content piece	High
OC-6 Admin home page: admin can view overall project progress, individual vertical progress, and targets of the past, current, or future months	High
OC-7 Admin global pitch board: shows all pitched ideas from writers. Admin can review and approve / reject pitches	High
OC-8 Admin global title board: admin can view title details and assign title to writers	High
OC-9 Team Board: admin can view team member's performance and progress and change member's account type	High
OC-10 Admin goals board: admin can set target vertical and amount of titles desired for current or future months, and also assign content writers to verticals	High

Table 2: Level of Capability Goals

3.2.2 Level of Service Goals

Level of Service Goals	Priority Level	Referred WinWin Agreements
LOS1: System shall mimic and streamline the entire idea formulation workflow currently practiced by the client	Must have	WC_4947, WC_4955, WC_4964, WC_4969, WC_4970, WC_4977
LOS2: System shall be easy and pleasant to use by a typical team size of 50 content writers and 5 content admins and with the ability to scale up or down	Nice to have	WC_4978
LOS3: System should be designed in a way such that the handoff to client will be smooth	Nice to have	WC_4832

Table 3: Level of Service Goals

3.2.3 Organizational Goals

OG-1: Manage the team more easily by content admins through implementing privilege control

OG-2: Speed up content creation for content writers and content admins by streamlining current workflow

OG-3: Scale content production and traffic acquisition via modern database hosting and management

3.2.4 Constraints

CO-1: Cloud based web application - the system shall be deployed on AWS for production. Note that Heroku will be used for prototype purpose

CO-2: Limited Access: The system shall only be available to our client System1 with their employee credentials and the authentication module will be implemented based on JWT

CO-3: Preferred backend technology: Backend shall be implemented using python flask and documented by Swagger UI. Database will be hosted on mongoDB mLab

CO-4: Preferred frontend technology: Frontend shall be implemented using React JS, Node JS, Creative TIM, material, and webpack

3.2.5   Relation to Current System

Capabilities	Current System	New System
Roles and Responsibilities	- Content writer identify, draft, and pitch a trending subject - Admin approves the pitch for title creation - Content writer creates eye-catching title - Admin approves the title for content production	Mimic and streamline the entire existing workflow
User Interactions	Edit shared spreadsheet	Create a new content piece entry and follow it along its lifespan from draft to content production
Infrastructure	Cloud based spreadsheet	Cloud based database hosting and web app
Stakeholder Essentials and Amenities	N/A	- Monitor and manage team activity and performance - Follow content lifespan with live notification
Future Capabilities	N/A	Potentially integration with content production and trend identification functionalities

Table 4: Relation to Current System

3.3 Proposed New Operational Concept

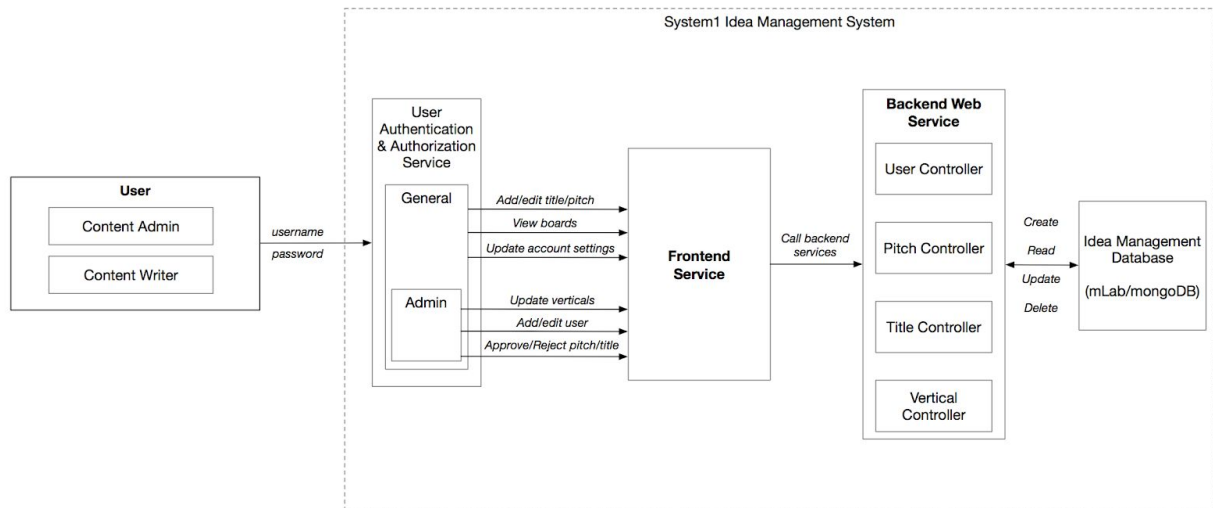### 3.3.1   Element Relationship Diagram

Figure 4: Element Relationship Diagram
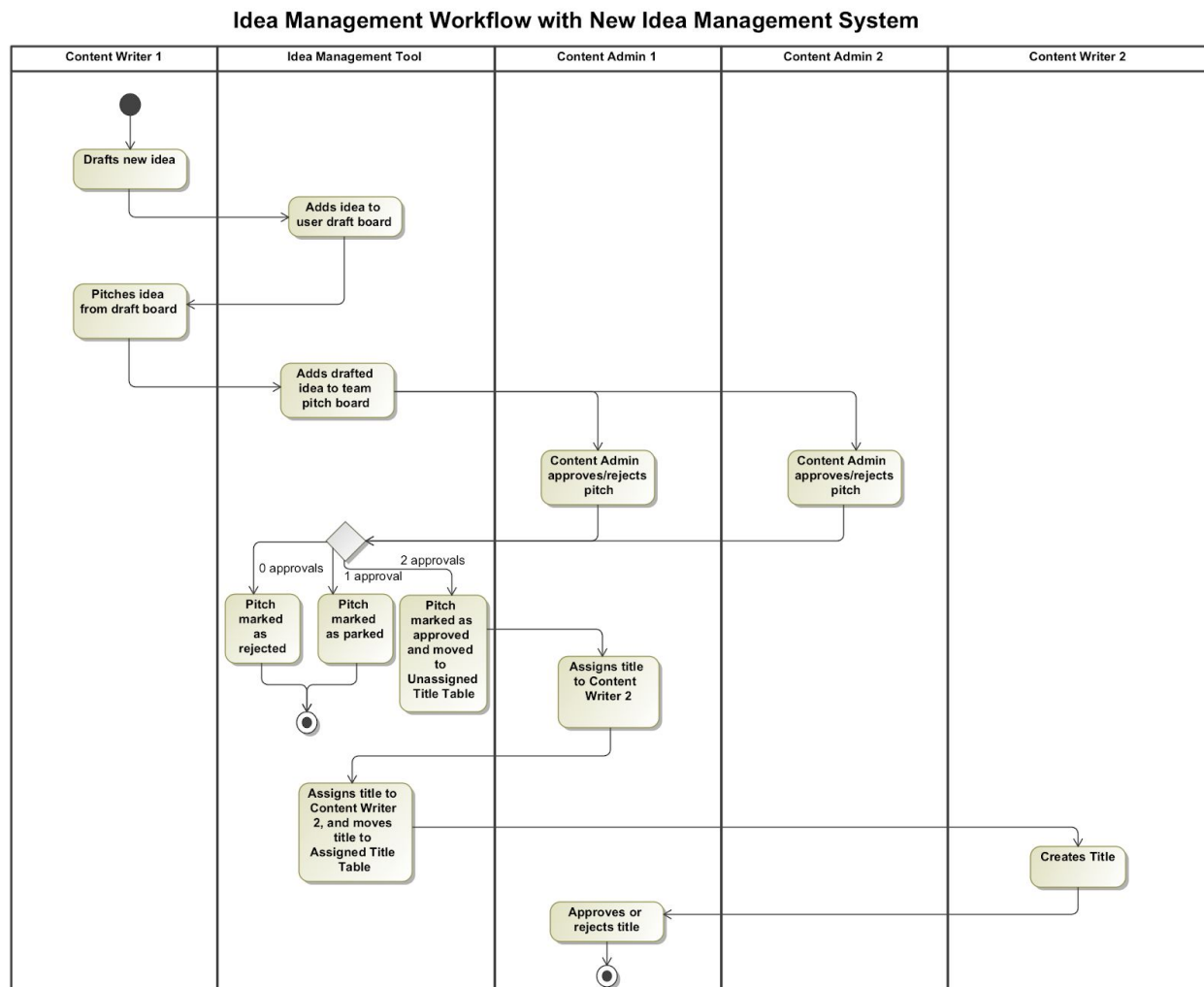
3.3.2 Business Workflows

Figure 5: Business Workflows Diagram

3.4 Organizational and Operational Implications

3.4.1 Organizational Transformations

The following organizational transformation will result from transitioning to the new system:

- The need of dedicated staff to maintain the system, both backend hosting and frontend website

3.4.2 Operational Transformations

The following operational transformation will result from transitioning to the new system:

- Content writer and admin will receive immediate notifications of the content piece over the different stages of content creation
- Admin will be able to manage team member access privilege

- Content writers and admins will need to log in or log out of the web app session
- The option to export data into spreadsheet