

Early Operational Concept Description (OCD)

Team #5

SimVBSE Game Evolution Analysis

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Version History

Date	Author	Version	Changes made	Rationale
09/14/06	Project #5 Team	1.0	Original template for use with LeanMBASE v1.5	Initial draft for use with LeanMBASE v1.5

1. OCD Overview

1.1 Introduction to the OCD

The Operational Concept Description (OCD) explains the key functionalities that the system is expected to deliver. It also helps the developers understand the high-level objectives of the system and what the client expects from the system. Team #5 will be involved in analyzing the evolution of the current version of the “VBSE GAME”, the information for which can be found at www.simvbse.com.

The research information will be used by our client, Mr. Apurva Jain from the Center of Software Engineering at the University of Southern California to teach the concepts of Value Based Software Engineering to the end users.

This document contains version 1.0 of the LCO anchor point description of the operational concept.

1.2 References

“SimVBSE: Developing a Game for Value-Based Software Engineering” can be found at:

<http://sunset.usc.edu/publications/TECHRPTS/2005/usccse2005-518/usccse2005-518.pdf>

Guidelines for Lean Model-Based (System) Architecting and Software Engineering (LeanMBASE) can be found at:

http://greenbay.usc.edu/csci577/fall2006/site/guidelines/LeanMBASE_Guidelines_V1.5.pdf

“Value-Based Software Engineering: A Case Study” can be found at:

<http://sunset.usc.edu/publications/TECHRPTS/2003/usccse2003-505/usccse2003-505.pdf>

Information regarding the current version of the system can be found at:

www.simvbse.game

2. Shared Vision

2.1 System Capability Description

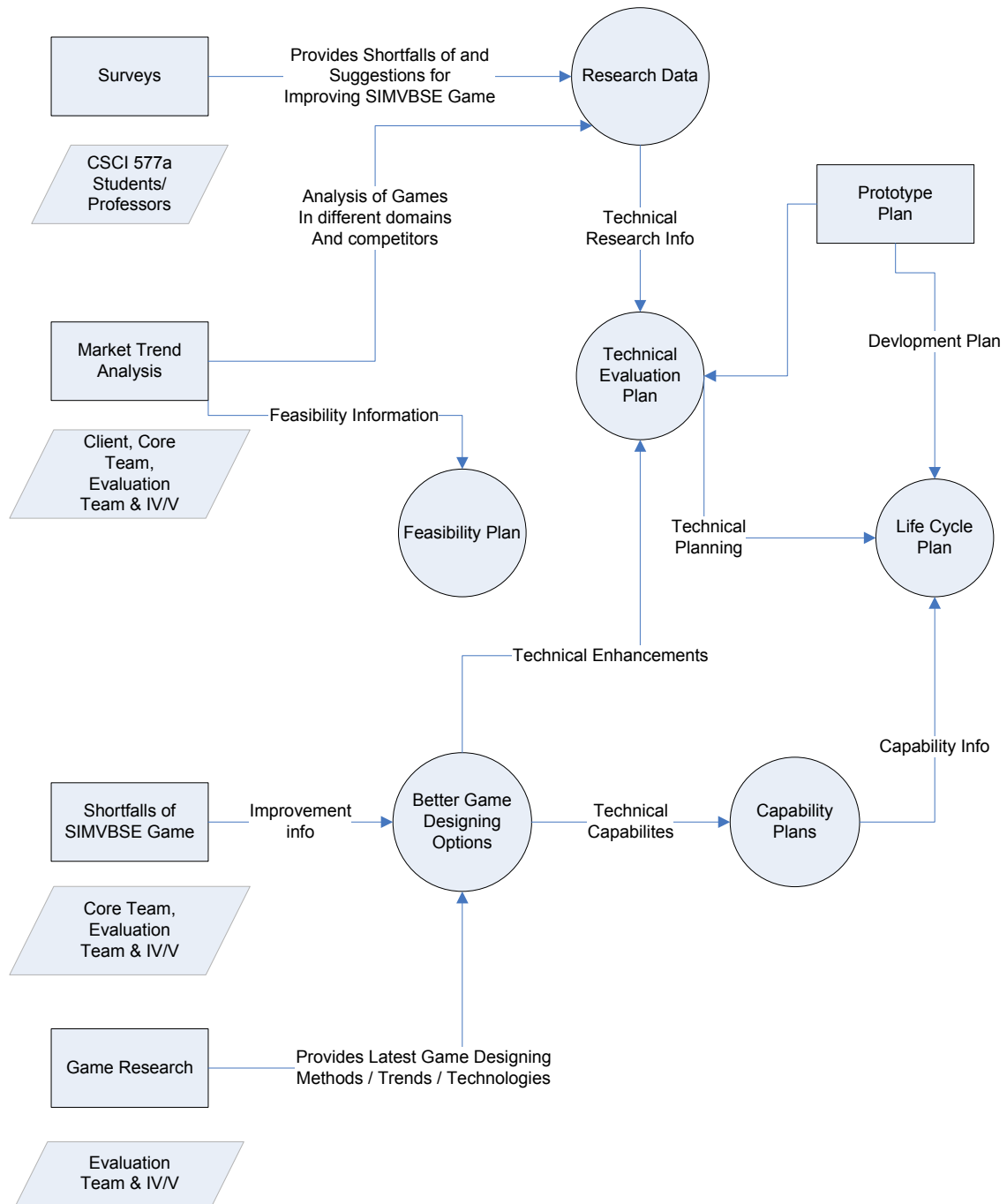
The center for software engineering requires an analysis for the evolution of its current version of the VBSE game. The proposed plan will provide research analysis and speculative information such as resources, time and effort required on how to evolve the game in future. It will give the core team and the client a better understanding of the game thereby reducing the time in analysis for future development.

2.2 Expected Benefits

- Providing the client with research information validated through prototypes which will serve as proof of concepts.
- Providing a set of steps and decision aides for identifying the risks and opportunities associated with the future of the game.
- Make the client aware of the limitations of the current system.
- Provide the client with the following plans:
 - Technical evolution plan
 - Capability evolution plan
 - Life cycle plan
 - Feasibility plan

2.3 Benefits Chain (Initiatives, Expected Outcomes, and Assumptions)

Assumptions:
 - Provide Research Information
 - Provide capability plan, technical evaluation plan, and feasibility plan for future development.



2.4 Success Critical Stakeholders

Client:

Apurva Jain

Research Assistant, Center of Software Engineering, USC

End Users of the SIMVBSE Analysis and Evolution:

1) SIMVBSE Core Team, Center of Software Engineering, USC

- Game Developers:
Shriyamvar Bugga
Sameerkumar Bendapudi
- Graphic Designers:
Arpitha Shetty
Neha Sethi

2) Center of Software Engineering, USC

Analysts and Developers:

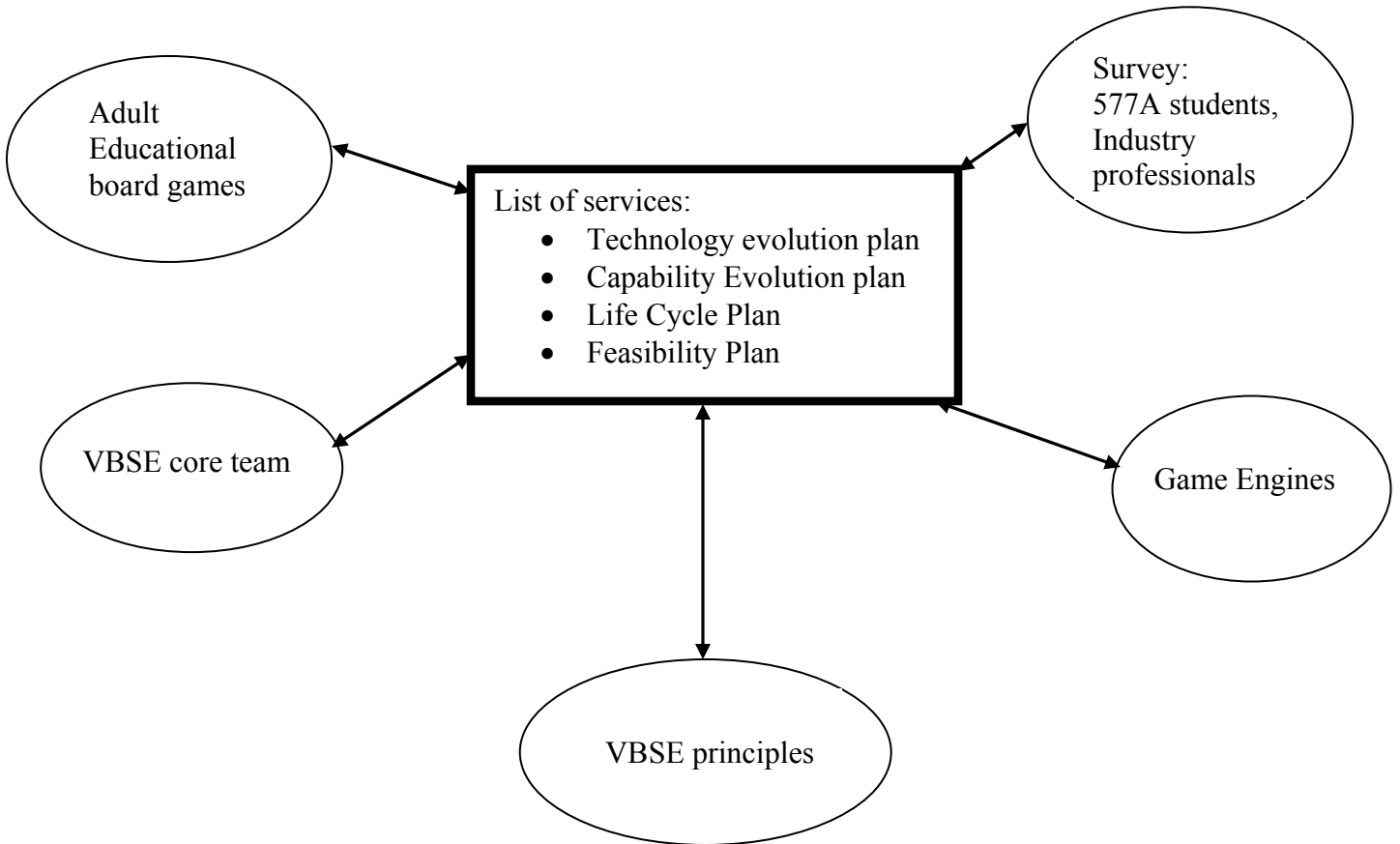
1) CSCI-577A Evolution Team

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Planning and Prototype
- Sapan Parekh
Operations and Testing
- Sneha Matani
Requirements and Planning

2) IV/V:

- Ryan McAlinden
- Bradford Loos

2.5 System Boundary and Environment



3. System Transformation

3.1 Capability Goals

1. **OC-1** 3D Interface & Enhanced User Experience: Provide information with which, a 3D game interface that best reflects the case study requirements can be implemented.
2. **OC-2** Prototypes: Provide prototypes and proof of concepts of opportunities and risks inferred from Market Trend Analysis.
3. **OC-3** Current Shortfalls: Provide the client with the current shortfalls of the system inferred through testing of the current version.
4. **OC-4** Feasibility Proposed Plan: It will provide research analysis and speculative information such as resources, time and effort required on how to evolve the game in future

3.1.1 Relation to Current System

The current system has limited gaming features and simulation. Based on the flexibility of the behavior in the market trend the current system requires an evolution that will project a better picture of market in the future. The proposed plans will also provide an assessment of the current system and highlight its limitation and shortfalls.

3.2 Organizational Goals

3.3 Proposed New Operational Concept

3.3.1 Entity Relationship Diagrams

