# Operational Concept Description (OCD)

**JEP Online platform**

**Team: 15**

**Team Members:**

|  |  |  |
| --- | --- | --- |
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| Wei Yan | Developer | Tester |
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**04/30/2014**

# Version History

|  |  |  |  |
| --- | --- | --- | --- |
| Date | Author | Changes | Version |
| 10/05/2013 | Ricardo Solano | Created Results chain, PM, Boundary diagram and Buisness Workflow | 1.0 |
| 10/10/2013 | Ricardo Solano | Results chain and PM changed | 1.1 |
| 10/14/2013 | Ricardo Solano | Stakeholders, Results Ch, PM changed | 1.2 |
| 10/15/2013 | Ricardo Solano | Stakeholders changed | 1.3 |
| 10/16/2013 | Ricardo Solano | Complete Document review, Added missing points for VC pachage Stakeholders, , PM changed. Results Ch removed  Part 3 Rewrited | 2.0 |
| 10/16/2013 | Ricardo Solano | Terms disambicuation, ARB Corrections: ER Diagram, Boundary diagram, Added Susan Harris as stakeholder, business workflow | 2.1 |
| 11/11/2013 | Ricardo Solano | Changed System boundary, results chain, Finished OCD, business workflow, element relationship diagram, goals and level of service | 3.0 |
| 12/03/2013 | Ricardo Solano | Slight grammar, spelling and format corrections | 3.1 |
| 02/09/2014 | Shreya  Nigam | Slight formatting and version update | 4.0 |
| 03/30/2014 | Shreya  Nigam | Updated section 2.1and version number | 5.0 |
| 04/02/2014 | Shreya  Nigam | Update for IOC and TS set | 5.1 |
| 04/15/2014 | Shreya  Nigam | Remove GPS granularity and fix formatting | 5.2 |
| 04/30/2014 | Shreya  Nigam | Final update. Final deliverable | 5.3 |

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### Introduction

#### Purpose of the Operational Concept Description Document

This paragraph shall summarize the purpose and contents of this document and identify the project stakeholders

* Current life cycle phase or milestone (e.g., LCO version of OCD)
* The specific system whose operational concept is described here: [name-of-system]
* Its operational stakeholders: [Describe the stakeholder roles and organizations]
* Use specific names, titles and roles

Show how your particular Operational Concept Description meets the completion criteria for the given phase or milestone

Suggested baseline wording is provided in the MBASE Electronic Process Guide (EPG) template

**Common Pitfalls:**

Simply repeating the purpose of the document from the EPG template or guidelines

The purpose of the Operational Concept Description (OCD) for JEP online platform is to describe to the stakeholders of the system, how the system will function in practice. The functions of the system are included in the operational concept as well as the interactions of the system users.

The stakeholders include the customer, the users, the project manager, and the developers. The users include JEP volunteers, JEP staff, and site teacher or coordinator.

The OCD will provide clear and concise documentation to the stakeholders, especially for reference and guidance for all parties, to ensure that the correct system is being developed and the system is being developed correctly. A clear understanding of how stakeholders will interact with the system and how they interact with each other with regards to the system is a crucial function of the OCD. Specifically, the main goals of the OCD are to enable the operational stakeholders to evolve knowledgeably from their current and inadequate operational concept to the new operational concept, and to enable stakeholders to collaboratively adapt the operational concept as new developments arise. Therefore, the operational concept description is written in the common language of all interested parties.

#### Status Operational Concept Description Document

The operational concept description is complete as of version 5.2.

#### References

* Provide complete citations to all documents, meeting results, and external tools referenced or used in the preparation of this document and their outputs.
* This should be done in such a manner that the process and information used can be traced and used to reconstruct the document if necessary

System and Software Architecture Description 5.3

Feasibility Rationale Description 5.0

Life Cycle Plan 5.0

### Shared Vision

#### Success-Critical Stakeholders

Table 1.1: Key StakeholdersIdentify each stakeholder by their home organization, their authorized representative for project activities, and their relation to the Results Chain. The four classic stakeholders are the software/IT system’s users, customers, developers and maintainers. Additional stakeholders may be system interfaces ( the order fulfillment people above), subcontractors, suppliers, venture capitalists, independent testers and the general public (where safety or information protection issues may be involved).

Common Pitfalls:

Being too pushy or not pushy enough in getting your immediate clients to involve the other success-critical stakeholders. Often, this involves fairly delicate negotiations among operational organizations. If things are going slowly and you are on a tight schedule, seek the help of your higher-level managers.

Accepting just anybody as an authorized stakeholder representative. You don’t want the stakeholder organization to give you somebody they feel they can live without. Some good criteria for effective stakeholders are that they be empowered, representative, knowledgeable, collaborative and committed collaborative and committed.

|  |  |  |  |
| --- | --- | --- | --- |
| Stakeholder | Organization | Authorized Representatives | Relation to Benefits Chain |
|
| Client: JEP | USC JEP | Susan Harris | Provide information and Feedback to Dev. Team |
|  |  |
| Developer Team | USC CSCI-577b | Wei Yan | Develop System |
| Shreya Nigam | Provide initial training to use the system |
| Reem Alfayez |  |
| Rebbecca Lin |  |
| Nicholas Pecoraro |  |
|  |  |
| JEP Administrators | USC JEP | Susan Harris | Use the system |
| Jacob Peters | Train future staff and volunteers.  Check attendance |
| Yujung Nam |  |
|  |  |
| JEP Volunteers / Students | USC JEP | Not yet Assigned | Use the system |
|  |  |  | Check In |
| JEPOP Maintainer | N/A | Justin Gondek | Maintain the System |
| Dornsife Staff | Dornsife | Susan Cheng | Connect system with database and Shibboleth |
|  |  |  |  |

#### Overview of the system

Table 2.2: The Program Model

|  |  |  |  |
| --- | --- | --- | --- |
| **Assumptions**  1. JEPOP will improve volunteers experience and learning at JEP  2. The centralized JEPOP location database will be significantly more efficient than the existing process  3. Most students will use Geo-location instead of old paper-based system  4. Volunteer will Access the site information using JEPOP  5. PA’s and JEP staff will Use check in messages to communicate with volunteers. | | | |
|  | | | |
| **Stakeholders** | **Initiatives** | **Value Propositions** | **Beneficiaries** |
| * JEP Administrators * JEP Volunteers * JEP Alumni * CSCI-577 Developers * DEN Staff * JEPOP Maintainer * Dornsife staff | * Develop integrated JEPOP with GUI (User interface) * Integrate Geo-location Check-in into database. * Provide specific site information and directions * Install JEPOP In JEP Server * Connect System to Shibboleth | * Facilitate communication across JEP volunteers/staff/sites * centralize and organize JEP Information * Simplify and Streamline existing paper processes * Increased learning from the JEP program | * JEP Administrators * JEP Volunteers * JEP Site teachers * JEP Alumni * Community Sites |
|  |  |  |  |

#### System Capability Description

The System to be developed is an on line web application to be used by the JEP volunteers and staff. Volunteers will be able to log in using shibboleth to this web application primarily on their mobile devices to, from their web browsers.

The main purpose of it is that volunteers can check-in to their corresponding sites. But they will also be able to interact with the platform and get valuable information from the sites and Program Assistants.

#### Expected Benefits

These are the major expected benefits of the system:

* Facilitate communications across JEP
* Centralize and Organize JEP information
* Simplify and Streamline existing paper process
* Increase learning in the JEP program

#### Benefits Chain

Below the expected results chain is shown. This explains how the benefits are expected to be realized by the development of the system.



Figure 1: Results Chain

#### System Boundary and Environment



Figure 2: System Boundary and Environment Diagram

### System Transformation

#### Information on Current System

##### Infrastructure

Most of the processes to be implemented by the system are currently done manually. Documents are sent to the volunteers by their PAs and the volunteers have to browse themselves. Attendance is managed using attendance papers that the volunteers fill and turn in.

##### Artifacts

|  |  |  |  |
| --- | --- | --- | --- |
| **Artifact** | **Description** | **Requested/ Shown/**  **Received** | **Planned Delivery Date** |
| **Initial presentation** | **Walkthrough of the system** | **Shown** | **09/27/2013** |
| **Requirements** | **Project requirements and goals** | **Shown** | **09/27/2013** |
| **Volunteer Check-in Sheet** | **Check-in form** | **Received** | **09/27/2013** |
| **Volunteer assignment sheet** | **For volunteers after they are assigned a site** | **Received** | **10/16/2013** |
| **Site information sheet** | **Handed to students to locate the site, coordinator, etc…** | **Received** | **10/16/2013** |
| **Volunteer Application** | **Application form for USC students** | **Received** | **10/16/2013** |

##### Current Business Workflow



Figure 3: Business Workflow DiagramHere is an example for a corporate order-entry system: “Our sales people need a faster, more integrated order entry system to increase sales. Our proposed Web Order system would give us an e-commerce order entry system similar to Amazon.com’s, that will fit the special needs of ordering mobile homes and their aftermarket components. Unlike the template based system our main competitor bought, ours would be faster, more user friendly, and better integrated with our order fulfillment system.

#### System Objectives, Constraints and Priorities

##### Capability Goals

Table 3.5: Capability Goals

|  |  |
| --- | --- |
| **Capability Goals** | **Priority Level** |
| OC\_1 receive custom message upon check-in | Must Have |
| OC\_2 Unique User accounts (JEP PAs, Administrators, Volunteers) | Must Have |
| OC\_3 Geo-Location Check-In | Must Have |
| OC\_4 Access to Site information (Map, contact, description) | Must Have |
| OC\_5 Organize and access PDF Documents (reflective questions) | Must Have |
|  |  |

##### Level of Service Goals

Table 4.6: Level of Service Goals

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Level of Service Goals** | **Desired level** | **Acceptance level** | **Priority Level** | **Referred WinWin Agreements** |
| Check-in Time | 5s | 15s | Med | WC\_2610 |
| System Availability | 99% | 95% | Med | WC\_2610 |

##### Organizational Goals

**OG-1:** Facilitate communication across JEP volunteers/staff/sites

**OG-2:** centralize and organize JEP Information

**OG-3:** Simplifyand Streamline existing paper processes

**OG-4:** Increased learning from the JEP program

##### Constraints

**CO-1:** **Mobile platform support**: The new system must be able to run on mobile platforms.

**CO-2: Little or Zero Budget:** The selected NDI/NCS should be free or no monetary cost.

#### Proposed New Operational Concept

This section contains information about the transformation of new operational concept that will be introduced to the system.

##### Element Relationship Diagram



Figure 4: Element Relationship Diagram

##### Business Workflow

The business activities of JEP will change minimally with this system, The only difference is that the check-in will be done via this platform, and it will be much simpler.



Figure 5: New Business Workflow Diagram

#### Organizational and Operational Implications

##### Organizational Transformations

* The elimination of the current, time-consuming attendance paperwork
* The need to hire a new system maintainer to take care of the system

##### Operational Transformations

* Replacement of inefficient manual e-mail method with an group e-mail capability provided by the site relations with volunteers, or other relations in the database
* Volunteers do not have to fill any attendance sheets anymore
* JEP Staff will not have to check attendance sheets manually
* Volunteers will access site information through JEPOP