SENTOSA PASS SYSTEM

A PROPOSAL TO: SENTOSA

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Singapore Management University

IS480

Introduction

The admin department of Sentosa manages the staff passes on the island. They prepare the creation of the staff pass for the large number of employees of the company. The Sentosa Pass is unique to each user and is needed for access to the compound of Sentosa

Problems with the Current System

Currently, the admin department of Sentosa faces a few issues. Firstly, the printing of staff passes requires 2 machines to be carried out. One machine is used for inputting and editing of staff information into the database. The other is for the designing and printing of staff pass. This process flow requires 2 machines because the designing software is obsoleted and is only able to run on Windows XP, whereas the company wish to switch to Windows 7.

From our current research, the designing software is already outdated and is hence, unable to run on machines with a newer operating system.

Furthermore, the current system does not help the administrators to keep track of the different tasks done by each individual. Administrators are also unable to revert to previous revisions or carry out recovery of lost information.
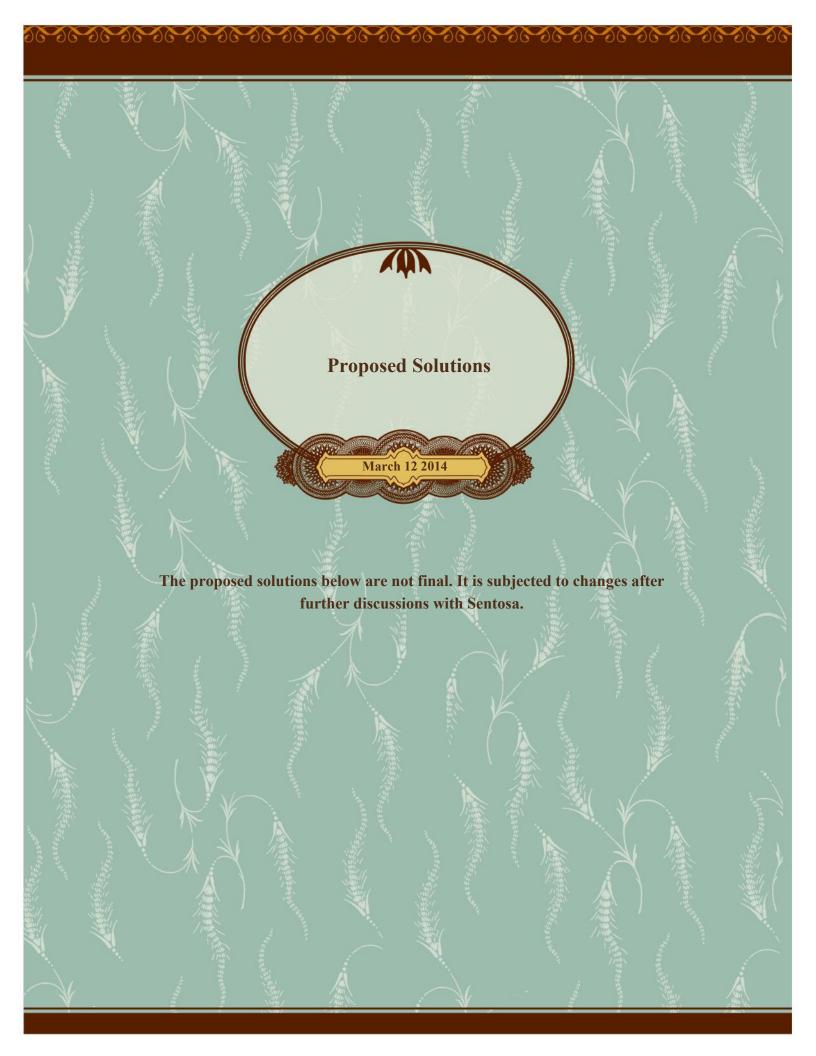
Current Software and Hardware

- Microsoft Access
- Zebra P330i (Printer)
- Card Five System v7.7i (Printing & Designing Software)
- Operating System: Windows 7

Current Functionalities

Printing Functionality:
- The main interface is split into 2 columns.
- The right panel is for selection of information.
- The left panel is for the user to carry out the designing

Proposed Solutions

March 12 2014

The proposed solutions below are not final. It is subjected to changes after further discussions with Sentosa.

Goals

- To increase the efficiency of the creation of Sentosa Pass Process
- To provide revisions and backup for information recovery
- To integrate the Sentosa Pass System into one machine

Objectives

- To create a user friendly Sharepoint portal for admins to carry out the Sentosa Pass Process
- To integrate the card printer with that of Sharepoint
- To provide business intelligence functionalities for them to carry out data analysis for identification of trends and patterns (Possible additional function)

Proposed Solutions

Below are our proposed solutions for Sentosa. Additional Functionalities can be found in the next page.

1. **Enhancing database design and setting it up on Sharepoint Foundation 2010**
    a. Setting up of sub-sites, lists, web parts etc.
    b. Storing of information on Sharepoint Foundation 2010
    c. Allow user to add/modify/delete information from the database
    d. Allow retrieval of information from the database

2. **Card Design Function**
    a. Allow users to upload the card design onto the database
    b. User can select different designs for the type of cards
    c. Allow user to select information from the database and populate different attributes
    (Name, NRIC etc.) on the designer tool
    d. Allow admin to save and retrieve the card design with information to prevent accidental deletion

3. **Provide 13 designs for card printing**

Additional Functionalities

Below are some additional functionality that we are proposing to Sentosa and might be implemented depending on the time available and the resources at hand.

1. Implementation of the 2 optional workflows

2. Reporting & Analytics
   a. Keeping track of the number of passes printed and created
   b. Records of users who have created, updated, or deleted the card information
   c. Other possible analytics (To be confirm with Sentosa)

3. Allow exportation of information from database for

Issues & Difficulties

1. Printer software not compatible

Based on our research from zebra website, there are currently available drivers for windows 7. However, there is an inconsistency in their user guide which states that the printer can only be used with Windows 2000/XP. Hence we are unsure whether is this an outdated copy issue or that the printer is not compatible with windows 7.

In the situation that the printer is not compatible, it will be rather difficult for the team because we will have to code out an entire printer driver which requires the sdk from zebra.

User Testing

We will require access to the printer for testing purposes of the Sharepoint. This will be crucial during the summer holidays as our priority is to ensure that the printing functionality is working

Furthermore, we will require the cooperation of the staffs to test out the functions so that we can gather feedback and make improvements on it.

Schedule

Upon hearing the problems and issues described by Angeline, our team understand the importance and urgency of the new Sentosa Pass System as it will affect the staffs' efficiency and productivity.

Hence, we hope to be able to complete the two main core functions (+ testing) for Sentosa by our acceptance (12th August 2014). There will be a planned average of 3 days buffer between each iteration to cater for any iterations extension or delay.

The schedule below is just a draft and is subjected to changes.

Iterations	Start Date	End Date	Description

1	01/05/2014	15/05/2014	• Requirement Gatherings
			• Research
			• Sharepoint Mockup
			   o Subsites
			   o Lists
			   o Libraries
			   o Dummy Data loaded
			   o User Groups
			   o Admin Control
			• Sentosa Pass System Database Function UI Mockup

2	19/05/2014	31/05/2014	• Sharepoint Creation • Sentosa Pass System Database Function • Card Design Function UI Mockup
3	03/06/2014	27/06/2014	• Card Design Function • User testing for Sentosa Pass System Database function • Debugging for Sentosa Pass System Database function
4	30/06/2014	19/07/2014	• User Testing • Printer Testing • 13 cards designs • Debugging

Iterations	Start Date	End Date	Description
5	22/07/2014	09/08/2014	• Debugging of 2 main functions • Sharepoint to be up and running • User testing • Preparation for Acceptance • Additional Functionalities to be confirmed
6	12/08/2014	12/09/2014	• Additional Functionalities Mockup • Additional Functionalities implemented
7	17/09/2014	02/10/2014	• Debugging • User Testing • Preparation for mid terms

Confidentiality

After speaking to Angeline during our meeting, she mentions that Sentosa has given their approval for all information to be published on our SMU wiki page. Dummy test data will be given for testing.

Contact List

Singapore Management University

In the event that the main personnel are unable to make it, his respective deputy will take over. For any emergency or important issues, please feel free to contact the relevant personnel directly.

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*P = Primary Role
*S = Secondary Role

Sentosa

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Thank you