

TravelBox, Inc.
Super Media Player (SMP)
Vision Document

Course: CS 2000: Systems Analysis and Design
Term: Fall 2005

1 Purpose

The purpose of this document is to collect, analyze, and define high-level needs and features of the SMP System. It focuses on the capabilities needed by the stakeholders, the target users, and why these needs exist. The details of how SMP fulfills these needs are detailed in the use cases, supplementary specifications, and related documents.

1.1 Scope

This document addresses the vision for SMP.

1.2 Definitions, Acronyms, and Abbreviations

None

1.3 References

- “Traveler Frustrations in a Post 9/11 World”, Mike Marketing, internal memo, June 25, 2002.

2 Positioning

2.1 Overview

Anybody that has had to wait at an airport or a train station knows how frustrating of an experience it can be. Combine that with excessive noise, the same TV program looping every 15-minutes, and the general chaos that looms about, and it soon becomes easy to see why the average traveler is at his/her wit's end. Marketing Department studies confirm that many of these travelers carry portable CD, DVD, and MP3 players, but there are times when the customer desires something new and/or different.

The TravelBox Board of Directors has determined that it is time to capitalize on the situation. We need to enter the market with small media players that can be installed in the armrests of chairs found in mass-transit waiting rooms. The system is envisioned to contain a small LCD screen with touch pad capabilities, a credit card swiper, a built-in headphone jack, and a wireless network card. Media will be digitized on a satellite system, streamed to the terminals satellite dish and sent to the system unit. We will lease the media from a well-established, to-be-determined satellite provider.

2.2 Business Opportunity

This is the ideal time to develop and deploy this product. Air and rail delays are at an all-time high and there is no end in sight. There are no known competitors.

2.3 Alternative Solutions

None

2.4 Market Penetration

We would like to market this product to the individuals who are responsible for the acquisition of equipment for air/rail waiting rooms. We will initially pilot the application locally, then regionally, then nationally.

3 Known Risks

3.1 Business Risks

- We do not have much expertise in marketing and servicing small, touchpad technology. The Marketing Department is in the process of searching for outside expertise.
- We need rapid market penetration to prevent competitors from entering the marketplace.

3.2 Technical Risks

- We may need to employ embedded software. Engineering is in the process of looking into J2ME technologies as an alternative.

3.3 Process

- We want to use an iterative, use case driven development process. We are in the process of searching for outside expertise to mentor and train our staff.

4 Stakeholder Descriptions

4.1 Marketing

Marketing is responsible for assessing product needs, pricing, packaging, decision-maker advertising, promotional media, packaging, and beta-site testing. They will be funding the project and they are eager and willing to get the product out into Production as quickly as possible. They will spend whatever time is necessary to work with the Systems Analysts. Many in the department have experience with related products, such as ATM machines.

4.2 Sales

The Sales department is responsible for selling the product, acquiring new customers, selling service agreements to existing customers, and end-user advertising. The Sales Group is rarely in the office because they are out on sales calls. We will want to collect as much of their requirements as possible, but not at the expense of delaying the product.

4.3 Legal

The Legal department needs to insure that trademarks and/or other legal matters are addressed.

4.4 Board of Directors

The Board of Directors is very interested in this project. They will be accountable to stockholders if the project is late or over budget.

5 User Summary

5.1 Customer

We want the product to be used by someone with an eighth-grade education. For the first release, we will use an English-only interface, but in future versions, we want to support Spanish, German, French, Japanese, and Chinese interfaces.

6 High Level Goals

- We want the system to be up and running 24*7, or as close to it as is reasonably possible.
- We want the system to grow.
- We want the system to be reliable. We do not want to spend our profits on fixing the system.

- We want the system to be intuitive and user-friendly. We want customers to enjoy their experience.
- We want the system to be fast. When a user makes a selection, we want it to be played quickly. That way, they will want to use the system longer, and increase our revenue stream.
- We want the system to be durable. We want a minimum of moving parts that can break down and we want a durable package that can withstand pings and knocks from customers and their luggage.
- We want the system to be secure. We do not want anybody with a credit card to use the system. All users must be authenticated.

7 Future Goals

- We want to offer special promotions, such frequent-flier bonus points, prepaid debit cards, etc.
- We want to form strategic alliances with major media firms. We want to be able to offer new releases, classics, and everything in-between.
- We want to maintain customer preferences so we can offer suggestions that are custom-tailored to their individual preferences.
- We want to be able to offer coupons and offer other cross-sale opportunities with other vendors, such as Starbucks Coffee, Krispy Kream doughnuts, etc.

8 Assumptions and Constraints

- We want to deploy the initial pilot by the end of the year.
- We must control change requests so that we can make the scheduled delivery.
- We want to develop the system using as many of the in-house technologies as possible.
- We want to use as much of the existing staff as possible.
- The system must be user-friendly. There will no user manual, but there will be a need for the terminals to have a help feature.
- We will retrofit the media players into existing seats.
- Each terminal has a satellite dish and we will lease bandwidth from it.

9 High-Level Feature List

9.1 Customer Features

9.1.1 Authentication:

1. The system must authenticate each subscriber. This will be accomplished by requiring the customer to provide a user id and a password. If this is a new customer, the information must be provided, along with email addresses and other information, such as password reminders, etc.
2. The system must ask the customer to provide credit card information. The system must validate that the credit card is a valid one and obtain the customer's account balance
3. The system must timeout if credit card information is provided and not confirmed by the customer.
4. The system must present a greeting message and a selection of options.

9.1.2 Start System

1. The system must allow the customer to start the system. This will be accomplished by simply touching the system's display unit.
2. Once started, the system must ask the customer to provide authentication information.
3. If there is no activity for 5 minutes, the system will present advertising and/or news bulletins.

9.1.3 Play Audio:

1. The system must allow the customer to build a playlist of songs.
2. The system must allow the customer to select songs by category (Blues, Rock and Roll, etc.), by title, or by artist. If by category, the customer must select whether to organize the list of songs by title or by artist.
3. As each selection is made, the system must display a running total of the number of songs selected and the amount of money that is due.
4. The system must ask the user to confirm the selections or change them.
5. The system must allow the customer to select as many songs as they want. The only limit is the number of songs from the satellite system or the customer's credit card balance.
6. The system must ask the customer to confirm a selection if it has already been made.
7. The system must play the songs in the order selected by the customer.
8. The system must display the title and artist of the song being played.
9. When all of the songs have been played, the system must issue a thank-you message to the customer and ask for another transaction. For security reasons, the customer must go through the authentication process if another transaction is desired.
10. The system must create a transaction containing a list of the songs played, the amount to be billed, and other information such as date, time, location, last 4 digits of customers credit card, etc. The transaction must then be sent to the corporate billing system, which in turn will batch them and send them to the credit card company.

9.1.4 Play Video

1. The system must allow the customer to select a type of media (TV, Movies, etc..).
2. The system presents an ordered list of available selections and allows the customer to make a selection (only one selection can be made).
3. The system must display the total.
4. The system must ask the user to confirm the selection or change them.
5. When the selection is played, the system must issue a thank-you message to the customer and ask for another transaction. For security reasons, the customer must go through the authentication process if another transaction is desired.
6. The system must create a transaction containing the customers selection, the amount to be billed, and other information such as date, time, location, last 4 digits of customers credit card, etc. The transaction must then be sent to the corporate billing system, which in turn will batch them and send them to the credit card company.

9.2 Other Features

9.2.1 Diagnostics

1. The system must allow the satellite system to perform remote diagnostics. The diagnostics will check each of the major hardware components and report any problems.
2. The diagnostics must take place when the system is out of operation. Details TBD.

9.2.2 System Configuration and Updates:

1. The system must allow the satellite system to update each unit's configuration. Example: location ID, version of software, etc.
2. The system must the satellite system to update each unit's software.