Digital Home

Feasibility Report

Version <1.0>

2/28/14

Document Control

Approval

The Guidance Team and the Customer shall approve this document.

Document Change Control

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Distribution List

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Change Summary

The following table details changes made between versions of this document

|  |  |  |  |
| --- | --- | --- | --- |
| Version | Date | Modifier | Description |
| 1.1 | 03/03/14 | NP-Soft | Entire team created report and filled out sections 1-6. |
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# 1. Introduction

<< BEFORE YOU BEGIN:

This outline is structured in sections. To display section breaks, headers and footers, from the View menu, point to Page Layout. To add information to a chapter, insert the information before a section break to ensure it flows onto the next page properly. Information inserted after a section break disrupts the header and footer layout scheme and results in incorrect pagination. For more information about section breaks, consult Microsoft Word’s online help. >>

## Purpose of the Feasibility Report

<< The purpose of this document is to … >>

## Justification for the Proposed System

## Requirements Definition

<< Summary of RDD and additional information; include full document in appendix >>

## Use Cases

<< Should include Use Case Diagram, Description of actors, Use Case, Actor-Use Case Relationship (Scenarios) >>

### Use Case Diagram (first-level abstraction)

### Actors (descriptions)

* Super-User
  + The super-user can create regular users for the system.
  + The super-user overrides any setting that is created/planned by a regular-user.
* Regular-User
  + Is always overridden by the super-user.
* Database
  + Stores the planner data set up by any kind of user (super-user gets priority.)
  + Keeps a log of the activity within the house (when a light is on/off).

### Use Case Descriptions

# Considerations

## Existing Systems

There are many smart home systems available in the market currently, many of these implement some of the features wanted in Digital Home; however, most are missing elements wanted by the customer. Next, we explore some systems that assimilate the needs of Digital Home found on the market currently.

### IntelligentHome

The IntelligentHome system by Time Warner Cable is one of the many smart home system solutions on the market. This particular system offers security measures to the house (alerts) triggered by events. It also employs a planner and remote access to lights and thermostat settings among others. Furthermore, the IntelligentHome’s controller is available on computers and smartphones. Finally, the IntelligentHome system is energy efficient. [\*\*\* ADD IntelligentHome REFERENCE NUMBER \*\*]

## Technology

### Web Interface

One thing that should be kept in mind while designing the system is that the look and functionality of the system can change as the devices from which the users access the Digital Home’s controller and planner (e.g. Adobe Flash technology is incompatible to an iOS device). Devices and Internet browsers change and evolve, while different frameworks and components might not be universally supported for most devices.

## General

### ADA Compliance/GUI

Digital Home should be highly accessible to everyone; this includes going a step further and keeps in mind the human computer interaction side of the system (e.g. color-blind).

## Heading 3

### Option 1

### Option 2 … Option n

# Solutions

## Technology

Next we will describe the technology solutions alongside their description, resources needed and limitations.

### Description (include requirements met)

A solution to compatibility and versatility of the Digital Home web interface should be to use widely compatible components that will be usable on most devices for a substantial amount of time (e.g. HTML5).

### Resources Needed

Training for the NP-Soft members in web technologies that work on most devices (e.g. HTML, PHP, JavaScript).

### Limitations

While trying to make the system highly accessible to devices, and extend the lifetime of the system, there may be some elements (frameworks, programming languages) that might be overlooked and ignored due to these constraints.

## General

Next we will describe the solutions to general problems alongside their description, resources needed and limitations.

### Description (include requirements met)

Digital Home should follow ADA design standards throughout its design and implementation phases in order to accommodate all types of users.

### Resources Needed

Training will be required for the designers of the system alongside the programmers to make ensure that the system follows ADA guidelines in order to satisfy this need.

### Limitations

The system while accommodating ADA guidelines might be handcuffed for some functions that are simply not able to follow these guidelines.

# Comparison of Solutions

<< This section should discuss how each option measures up against any constraints set forth in the statement of requirements and how each compares with the others.

Include the following:

* Specific hardware and software requirements
* Time constraints
* Ease of use
* Staffing levels and training required
* User preference
* Security issues

A matrix that compares features is required. >>

# Conclusions

<< Summary and recommendations >>

# References

IntelligentHome (Existing Systems)

<http://intelligenthome-texas.aiprx.timewarnercable.com/intelligenthome/>

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