MultiCon Software

Software Requirements Specification

Version History

Version No.	Date	Description of changes	Author
1.0	09/26/2021	First version of requirement specifications for product	Sindhu Kolluru

1. Overview

This document describes the requirements of the MultiCon product. This document shall be maintained and updated for every version update of the software. All specifications must be discussed and approved formally in a Change Request/Feature Request meeting prior to being added to the requirements. Approvals must be signed off by the Project Lead and Client PM prior to adding to requirements.

2. Purpose

The purpose of this project is to develop an application that acts as a central hub for interacting with devices. This app should be able to connect with local devices on local network. This app is designed to have both a console application or a web-app locally hosted and accesible through a browser. The list of local devices that can be integrated with include laptops, PCs, light bulbs, google home mini, computers and other such internet-connected on the network. All these above devices are accesible dependent on the availability of a supported API or an open library that can perform basic operations. This app is designed to improve convenience of use, and keep privacy settings by enabling only local-network activity and prevent unauthorized access to devices.

3. System Features

This product is designed to have the following functionality for this version. The scope of this is limited to :

- The first version of this project will be limited to connecting to 2 devices.
- The actions to be performed remotely will be - waking the computer, sending commands to google home mini or a tv.
- The first version will focus on achieving the functionality through command-line access. There will be no Gui in this development sprint.

3.1. User Interface:

3.1.1 The software will have a portal where the user can access the Multicon services

3.1.2 The software shall have 2 views – (i) a category view of the devices, (ii) view of all devices

3.1.3 The software shall have icons and provide clickable options and interface design

3.1.4 The app will have a login screen similar to a prompt where the user can enter credentials and then access the website

3.2. Search functionality:

3.2.1 The app will provide for a search bar for the user to search devices on the network

3.2.2 The search facility would limited number of devices based on user preference.

3.2.3 The search option will also include categorical search option, e.g, computers, apple devices, TV, etc.

3.3 Login

3.3.1 The user must be show a login prompt screen on clicking the icon for the app

3.3.2 The user login and password must have option to save to browser

3.3.3 The user credentials must be modifiable on the account settings on the website

3.4 Main Page

3.4.1 The main page must display after the user credentials have been verified as correct.

3.4.2 The main page must include options for account settings, profile management, adding devices manually using an IP, display page for all local devices as well as search options on top of the display page.

3.5 App installation

3.5.1 The website must be accessible through the downloaded application.

3.5.2 The application installer must correctly install and verify installation.

3.5.3 The application installer must provide options to create a shortcut on desktop and start menu.

3.5.4 Clicking on the application must open the website portal for local network

4. Quality Requirements

4.1. Availability

The system must not show any downtime and must be available on clicking the app icon.

4.2 Security

4.2.1 The system must use a https protocol and should ensure prevention of cross-trafficking

4.2.2 The system must be secure and use encryption for all its networking activities including storage of user data.

5. Operating Environment

This app must be designed for following system environment specifications:

OS: Windows 8.1 or higher

Browser: Chrome versions 55+, Firefox, Safari

System Specifications - Minimum available storage space: 1GB

Appendix

- Use Case ID: 101
- Use Case Name: Login
- Actors: User
- Description:
    - User must enter credentials to login
- Trigger:
    - User login must show invalid in red when credentials do not match
- Preconditions:
    - Login screen must display on clicking the icon for the app and provide connection to the main site in the backend.
- Postconditions:
    - Login screen must route to main screen if the credentials are correct
- Normal Flow

- o   User enters login and is routed to main page
- Alternative Flows:
  - o   User fails login and is prompted to re-enter
- Exception Flows:

  App does not display the login screen and fails initialization