**Wireless Waiter**

**Vision**

**Version <1.2>**

**Revision History**

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**Vision**

# Introduction

**1.1 Purpose**

The purpose of this document is to collect, analyze, and define high-level needs and features of the Wireless Waiter system. It will outline the scope of the project, the system features, product requirements, and the documentation requirements of the project.

## 1.2 Scope

## Wireless Waiter will allow a customer to connect to a restaurant’s local server simply by connecting to its Wi-Fi with a mobile device. Once connected, an ordering screen will appear on the customer’s mobile device which will allow them to place an order. Payment can be done through PayPal or another online payment service. The customer will receive an order number and their mobile device’s MAC address will be saved. This will allow the restaurant to save customer information such as previous order. It focuses on bringing a streamlined approach to ordering from a food establishment. This need exists because time to place an order is getting longer and available technology can be utilized to make the ordering process more efficient.

## 1.3 Definitions, Acronyms and Abbreviations

## 1.3a) POS: Point of Sale

## 1.3b) Wi-Fi: A wireless local area network that links two or more devices using a wireless distribution method

1.3c) User: The person who bought and is using the product for their business

1.3d) Customer: The person who the restaurant will be servicing

1.3e) LAN: Local Area Network

1.3f) Restaurant: The client for our software

1.3g) WAP: Wireless Access Point

## 1.4 References

## 1.4a) Fast food ordering times getting longer: <http://www.usatoday.com/story/money/business/2014/10/06/fast-food-drive-thru-times-restaurants-mcdonalds-taco-bell-wendys/16644673/>

## 1.4b) Wikipedia Wi-Fi definition:

## <http://en.wikipedia.org/wiki/Wirless_LAN>

# Product Features

## POS Over LAN Using Customer’s Mobile Device

The customer’s order will be placed through their mobile device by connecting to the restaurant’s Wi-Fi and sent directly to the restaurant’s local server over a LAN connection.

## 2.2 MAC Address Database

The Wireless Waiter has a database that stores all devices that connect to the Wi-Fi. The database has a timer so devices can only connect to the Wi-Fi for a 24 hour period of time per sale. Repeat customers will have their orders saved for ease of ordering upon return.

## 2.3 Local Web Page Interface

A local web page will appear on a guest’s mobile device upon connecting to the restaurant’s Wi-Fi. From this page, the guest will be able to order any item from the menu as if they were ordering from an employee.

# Constraints

3a) Users need a mobile device with Wi-Fi capabilities to use the service.

3b) A customers priority is based on a first come, first serve basis.

# Quality Ranges

**4.1 Reliability**

4.1a) The software will be able to handle any number of guests even at peak hours without a fault.

**4.2 Availability**

4.2a) It will be available to anyone within the venue who is connected to the Wi-Fi.

**4.3 Usability**

4.3a) It will have an easy to use ordering interface that will allow users to customize their orders exactly to their liking.

**4.4 Functionality**

4.4a) It is designed to keep the entire process as simple and mistake free as possible. The ordering menu that the customer sees after connecting to the Wi-Fi will be clean and simple while still providing all the necessary information to ensure they know exactly what they’re ordering.

**4.5 Supportability**

4.5a) The web page will be updated constantly whenever any menu changes are made along with ensuring any potential bugs are immediately fixed.

**4.6 Fault Tolerance**

4.6a) Zero down time.

**4.7 Performance**

4.7a) The orders will be sent from the user’s phone to the screens behind the counter almost instantaneously.

4.7b) The web page will run seamlessly with no delays when navigating through the menu.

# Precedence and Priority

**5.1 High Priority**

5.1a) POS over a LAN using a customer’s mobile device

5.1b) Local Web Page Interface

**5.2 Medium Priority**

5.2b) MAC Database

**5.3 Low Priority**

5.3a) Purchase Transactions

# Other Product Requirements

## 6.1 Applicable Standards

6.1a) Wireless Waiter will use TCP/IP protocols.

6.1b) It will also comply with ISO quality standards.

## 6.2 System Requirements

6.2a) The server will run a Windows machine which will host Wireless Waiter.

6.2b) The system will interface with the firmware package on the router.

6.3c) The client will need a WAP, a dedicated server, and monitors for incoming orders.

## 6.3 Performance Requirements

6.3a) The WAP must have enough range to cover the entire venue with no dead zones.

6.3b) The server and its database must be able to accommodate enough orders for all of the restaurant’s customers.

6.3c) The router must have a large enough routing table and memory to accommodate all of the restaurant’s customers.

## 6.4 Environmental Requirements

6.4a) The client will need to be able to power the WAP and server, and provide a cool room for the server to be placed in.

# Documentation Requirements

## 7.1 User Manual

7.1a) Given that our product is a program, the user manual will also come online. To protect our users in case of technical issues, each restaurant will be provided with one hard copy.

7.2b) The manual will have 1-2 pages dedicated to FAQs to assist the user with any quick and common questions that might arise. On top of that, it will have detailed explanations on how every feature of the ordering system works.

7.1c) A section will be dedicated on how to explain any questions the customer may have about the system including concerns about the security of inputting their financial information.

## 7.2 Online Help

7.2a) We will have both online and telephone help available 24 hours a day with trained professionals who can assist the employees should any issues arise with the system.

## 7.3 Installation Guides, Configuration, and Read Me File

7.3a) A professional will come on site to install the system. They will also provide all the employees with the proper training to ensure that they are prepare should guests have any questions how to go about placing the order. Managers and supervisors will also be trained in ensuring the program is running properly along with potential fixes they might need to employ.

## 7.4 Labeling and Packaging

7.4a) The restaurant will be provided with the firmware on a USB and a WAP if needed along with a disk to upload the program to the server.

7.4b) The customers will see the restaurant’s menu along with the Wireless Waiter logo in the bottom right corner not obstructing the menu in any way.