ESA-Star Modules

# Introduction

This document represents the definition and breakdown of tasks for each software module to be developed by ESA-Star Project Managers and Developers.

# Definitions

ESA-Star ~ The company known as ESA-Star LLC.

Merchant ~ Client / Property / Hotel participating in the ESA-Star Exceptional Service program

Module ~ This term is use loosely in this document to mean an architecture tier, application or website

Tier ~ We are implementing a 3 tier architecture. A database tier, a middle API tier and a User Interface tier.

# ESA-Star Administration Tools Website

## Description

Tier 3 or application tier. A suite of tools that ESA-Star Administrators will use to perform all necessary tasks involved in management of Staff, Merchants and Applications.

## Security

Accounts will be created by ESA-Star Administrator only. Once an account is created then the person associated with the account will have access to the ESA-Star Administration Tools website.

## Responsive

Not sure if this needs to be mobile friendly or not.

## Tasks

### User Administration

Create a page to add, remove and edit ESA-Star Staff including Roles and Permissions.

### Client Administration

Create a page to add, remove and edit Clients / Merchants / Properties / Hotels.

# ESA-Star Mobile Application

## Description

Tier 3 or application tier. Mobile application that exposes customer to a rich environment of features and services provided by ESA-star

## Security

## Responsive

This will be a downloadable application for phones or other mobile devices. It would be nice if it could be a downloadable PC application as well. ??

## Tasks

# ESA-Star PC Application / Website

## Description

Tier 3 or application tier. Same as Mobile Application only PC / web browser version

## Security

## Responsive

## Tasks

# ESA-Star About Us Website

## Description

Tier 3 or application tier. Landing page website. Tells about the company and gives some details about our products and services.

## Security

Open to public

## Responsive

Should work well on all browsers and all devices PC, Mac, Tablet, Laptop, All Smart Phones

## Tasks

### Website Design

### Website Development

# Merchant Web Site / Application

## Description

Each Merchant will have their own page where they will run their front desk, concierge, room services and other customer driven requests. This can also be used as staff, facilities and resources management. This application will have to have controls / access to existing PMS software and also door lock mechanisms. Exceptional Service modules will be available to help increase the communications between merchant staff and their customers as well as ratings and other two way feedback directly to and from mobile app users.

## Security

Full API Security

## Responsive

This should work well on PC or mobile devices.

# ESA-Star Database

## Description

Tier 1 or data tier. This is where the Meta Data and Actual Transactional Data is stored.

## Security

Regular Database Security will apply to database access. Fields containing customer information that may reveal identity will be encrypted. Cypher keys will be stored in a separate Security Database.

## Tasks

# ESA-Star Security Database

## Description

Tier 1 or data tier.

## Security

## Tasks

# ESA-Star API Module

## Description

Tier 2 or middle tier. This is the brains of the entire suite of modules. It accesses databases directly and provides the results in an easily consumable format. This is where interfaces with PMS and Locking mechanisms will be coded. APIs are like function calls. Parameters are passed and results are returned. All interfaces that require data stored in the database, PMS, locking systems or other sources will get that data from an API.

## Security

All security is handled at this tier. Security Level 1 is database credentials that are provided to gain access to database. Security level 2 is device detection. Devices that continuously fail at any security level will be blacklisted and not allowed access. Security Level 3 is application credentials. Each application will have a unique name and password that will be sent along with any API request. Security Level 4 is account credentials. Accounts can have two different login methods, one is username ~ token the other is username ~ password with additional security credentials. A tokens is given to an account that passes all 4 security levels and should be stored on the mobile app or as cookies on websites. Tokens reduce the amount of processing to gain secure access.

# Help Desk

## Description

Tier 3 or application tier. When ESA-Star goes live, we will need to have a help desk to handle security issues and other issues that may occur with any of the Modules.

## Security