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User Manual Digitization System

Blue Star India

Software Requirement Specification (SRS)

The document details the summary of solution architecture and approach for the development of User Manual Digitization System for Blue Star India. The document is based on the inputs, system study, discussions and meeting held between BCI & Blue Star India Teams.

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Revision History

REVISION NO.	DATE	PREPARED BY	REVIEWED BY	COMMENT
1.0	16-11-2022	Omkar Gaonkar	Chandrakant	SRS Document for User Manual Digitization

Abbreviations:

Name	Abbreviation
Work in Progress	WIP
API	Application Programming Interface
QR Code	Quick Response Code
AD	Active Directory

Client: Blue Star India.

Vendor: Bar Code India

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Table of Contents

1   SPECIFICATION ORGANIZATION

The objective of the application is to create User Manual Digitization that will help in digitizing the Products User Manuals and provide complete Customer Visibility to Blue Star.

The document lays down the specifications of the application, its architecture and infrastructure requirements.

Section 1: Introduction

This section provides hardware requirements and documentation conventions.

Section 2: User Interface

This section depicts screen design and logic flow, and is categorized into two groups:

- Application Master Module
- Common Routine

Section 3: System Architecture

This section provides information of system architecture.

2 INTRODUCTION

2.1 INTENDED AUDIENCE AND READING SUGGESTIONS

The scope of the software would require the development of the front end application, to transfer data from application to server. The document lays down the specifications of the middleware application, its architecture and infrastructure requirements.

The entire solution consists of followings:

1. Web Application
2. REST/API

2.2 PROJECT SCOPE

The scope of the software would require the development of the web application, and services for transferring data from application to Server. The document lays down the specifications of the application, its architecture and infrastructure requirements.

The proposed solution would require development of web based application. QR Code will be printed for each Product Unit and its Box having model code and serial number. On scanning QR Code, customers can download the user manual for their product from a web page after filling up the request form.

Using the application, Blue Star can also able to view and export Customers details who has downloaded the user manual and has visibility of their customers.

The entire solution consists of followings:

1. Web Application (Angular, Dot Net Core)

3   SOFTWARE/HARDWARE REQUIREMENTS

Desktop would require following specifications:-

- Server/Desktop with minimum 16GB RAM and 50GB space (accessible to all users who will access the application)

- MongoDB access with sufficient space (minimum 100GB).

- Cloud storage details where files will be stored.

- Public IP for the customer to download the Document.

- MongoDB should be accessible from this IP.

4 SOLUTION ARCHITECTURE
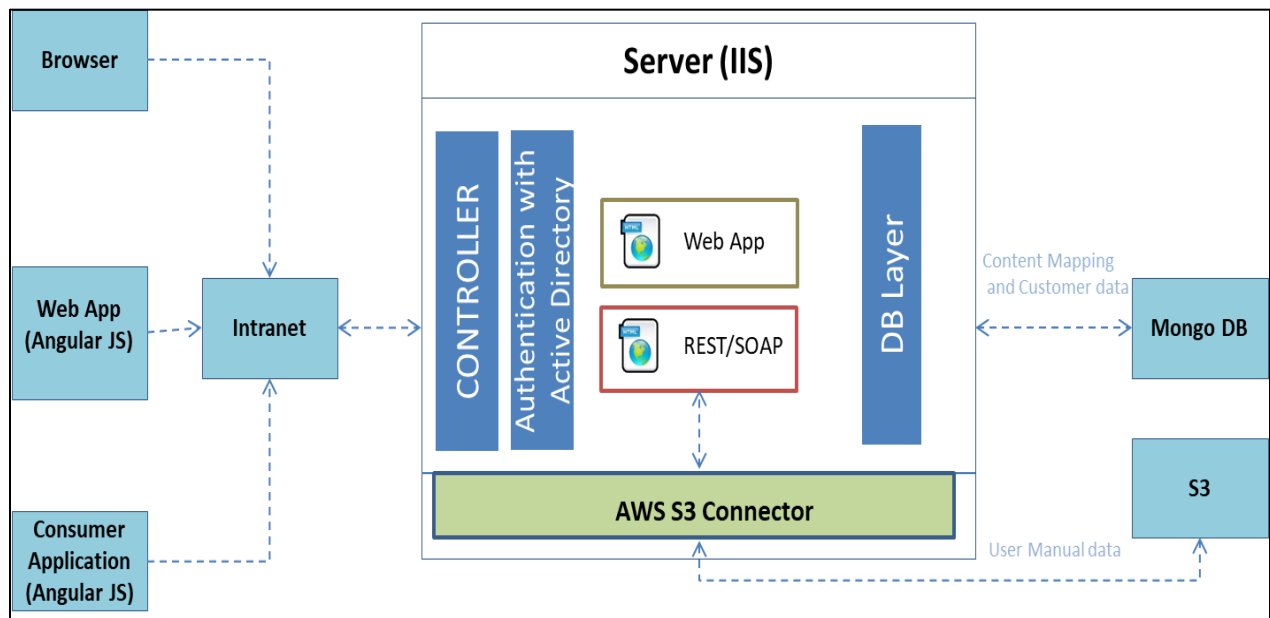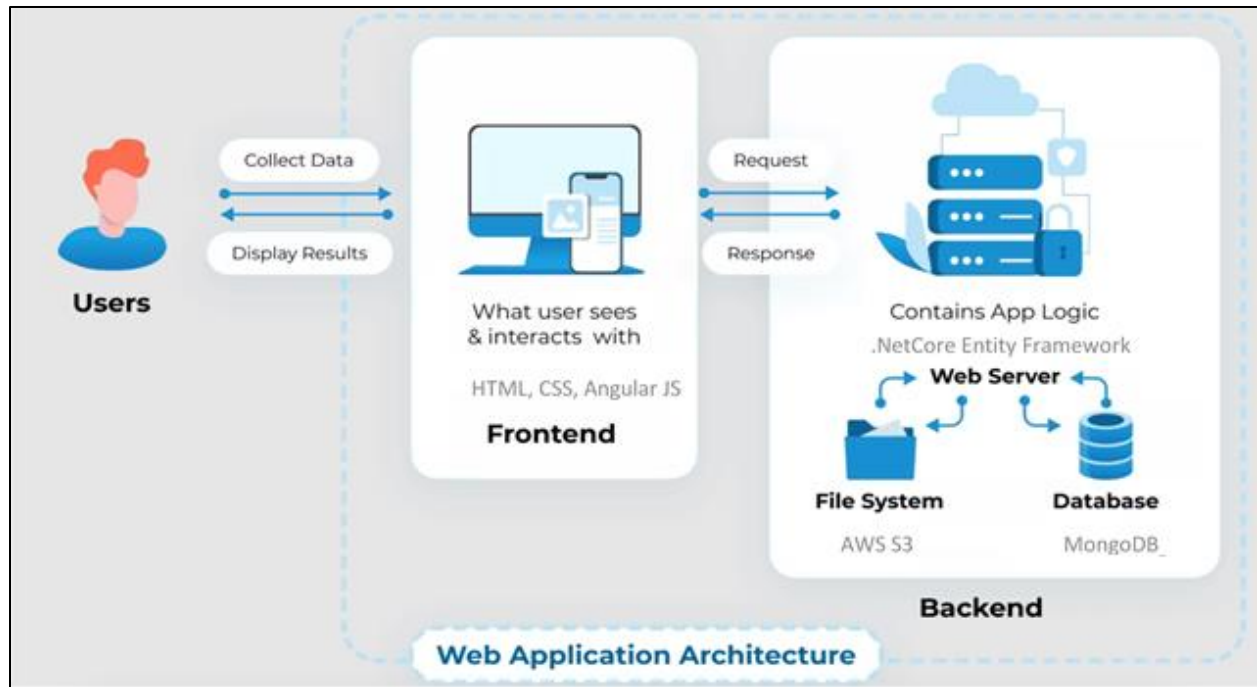
5   USER INTERFACE SPECIFICATION CONVENTIONS

This section specifies the user interface portion of the application.

Section Organization

The User Interface Specification presents screen displays or "**Dialogs**".

Documentation Conventions

This section incorporates illustrations of the application user interface. Each screen display "Dialog" consists of the screen display image, a process name, a paragraph documenting the processing required for the dialog, a paragraph listing the navigation options, and a table listing for each variable field on the dialog, its database source or destination, format, and any instructions required to process the field.

The following section contains a sample dialog with each area identified.

6 SYSTEM LOG

System shall maintain internal logs for application.

6.1 ERROR LOGS

These logs will contain any errors encountered during runtime for faster resolution of any problem post deployment.

6.2 AUDIT LOGS

These logs will monitor the activities of user who accessed the application, made changes to File/ Document and the time stamp of these activities.

7   ARCHITECTURAL DESIGN

Overall System consists of:

- Web Application

7.1   WEB APPLICATION

A Web Application will be developed for performing transactions like Master Creations such as User Manual linkage master.

8   APPLICATION MODULES

8.1   APPLICATION LOGIN- WEB APPLICATION

This login module will provide access to the application modules. Here the admin/user needs to enter the login detail to enter in the application and to perform the desired actions.
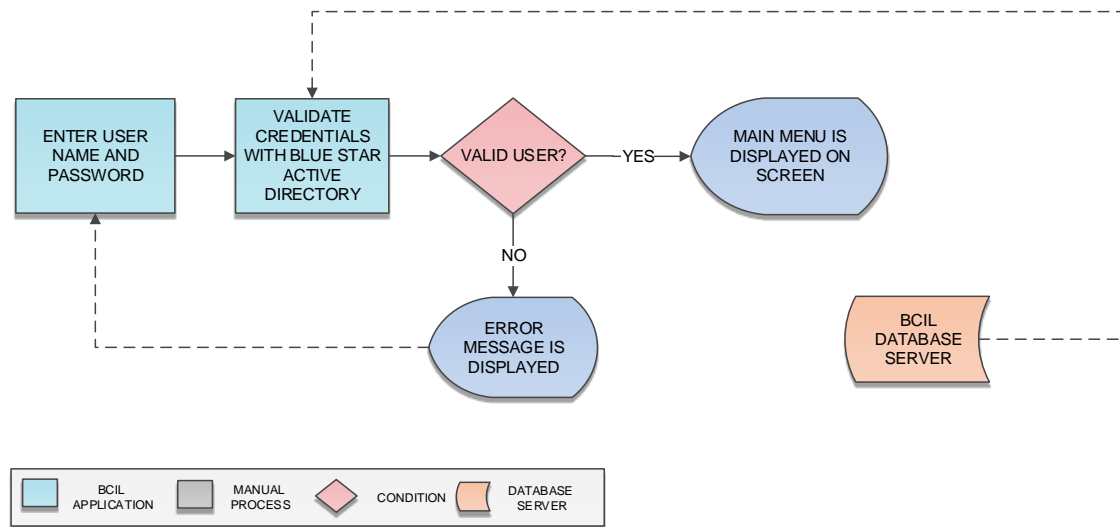
Process: User needs to enter the User Name/ID and Password in display fields and press the Login button.

Application will validate the credentials with Blue Star Active Directory.

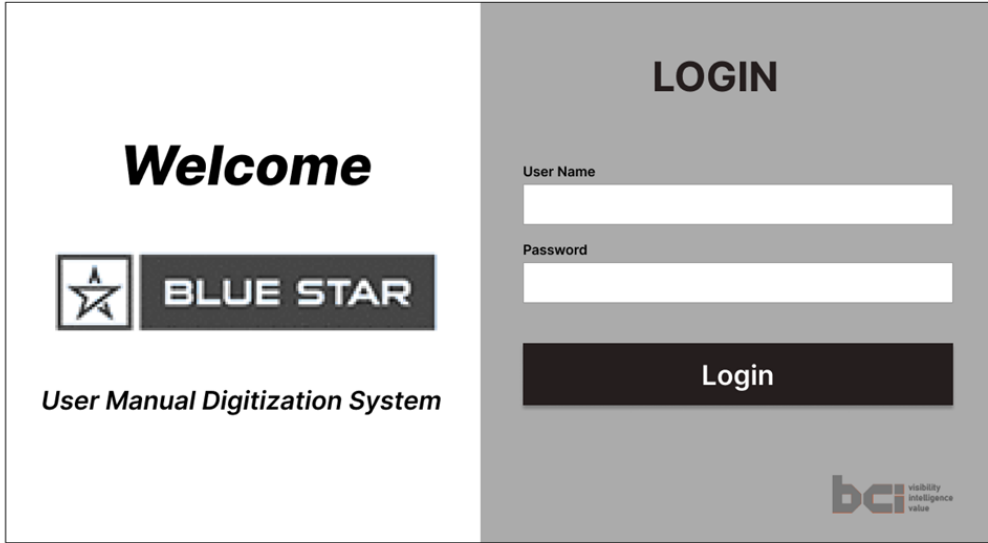*User will be able to view only those screens/ modules.*

Validation

- User Name/ ID will be unique for all users.

- User Name/ ID and Password length will be set.

After successful login application menu screen will appear; this screen will have the Master and report options etc.

8.2 USER LOGIN
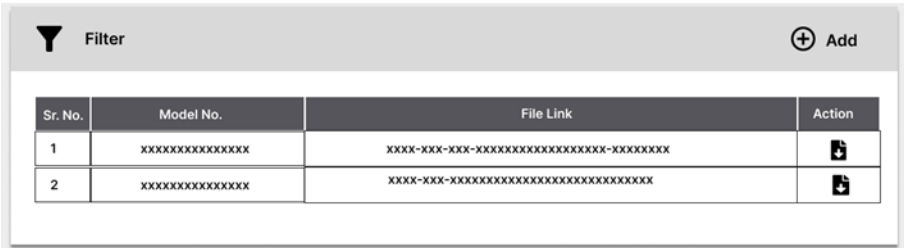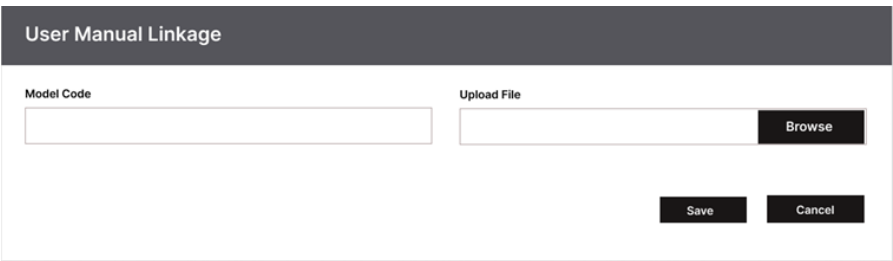
This module will let users to login in to the application.

Data Fields	1. User Name 2. Password
Process Steps	1. User will enter User Name/ID. 2. Enter the Password as per saved by user. 3. System will check the selected User is valid to login. *Activate directory will validate the User Id and password.* 4. Click on Login button to enter the application. 5. If the credentials are verified in AD, application access will be granted.
Functions	Login into the application
Sample Screen	

8.3 MASTERS

8.3.1 USER MANUAL LINKAGE MASTER

The module will be used to link the user manual against the model number of the product.

Data Fields	1. Model code 2. File upload 3. File Download
Process Steps	1. Enter the Model Code 2. User upload the files as against the model code. 3. User can download the existing user manual file. 4. Save the details in database.
Functions	Model Number gets linked to User manual file
Sample Screen	**View User Manual files** **Add User Manual files**

8.4 USER MANUAL DIGITIZATION PROCESS

8.4.1 QR CODE PRINTING

NOTE:
LABEL IS BEING PRINTED AS PER
CURRENT PROCESS RUNNING

| PRODUCT RECEIVED ON WIP LINE | → | SCAN PRODUCT WIP BARCODE LABEL | → | DISPLAYS THE MODEL CODE AND SERIAL NUMBER | → | PRINT TWO IDENTICAL QR CODE LABEL | → | PASTE ONE LABEL ON PRODUCT UNIT AND OTHER ON ITS BOX | → | BCI PLANT DATABASE SERVER |

| REST / API | → | MODEL CODE AND PRODUCT SERIAL NUMBER WILL BE UPLOADED | → | USER MANUAL DATABASE SERVER |

Legend:
- BCI APPLICATION
- MANUAL PROCESS
- CONDITION
- DATABASE

Activities

Module Description	This module will be used for Product barcode printing. User will scan that WIP Product Barcode and generate two identical QR Code labels. One Label is printed on Product Unit and other is on its Box. QR Code label will have Model Code and Serial Number and Website Link of the Product. *This this activity will be done through existing barcode application which is being used in all plants on manufacturing lines.*

Pre-Conditions	1. Authorized access to the application. 2. For unique identification of carton the model code and serial no to be pasted on it. 3. Website link to be in working conditions.

Process Steps	1. The product with barcode label is received on the WIP Line. 2. Scan the Product's WIP label. *Label is been printed as per current process running.* 3. The system will show the Model Code and Serial Number. 4. The user will create two QR Code labels that are the same. 5. Apply one label to the product unit and the other to the packaging box. *QR code label will have model Code and serial number and User Manual Download application link to send the information of QR code to User Manual database server.* 6. Model code and product serial number will be uploaded in user manual downloading application through User Manual download application link.

	7. Details get saved in User Manual database Server.

Post-Conditions	1. QR Code label found in the Carton to be having application linkage.

Validations	1. An alert should be displayed in QR Code label not scanned properly.
	2. An alert should be displayed in case invalid model code and serial number.
	3. An alert message is displayed in case of any error / invalid activity.

Remarks	Add any remark (If needed).

8.4.2 USER MANUAL DOWNLOAD
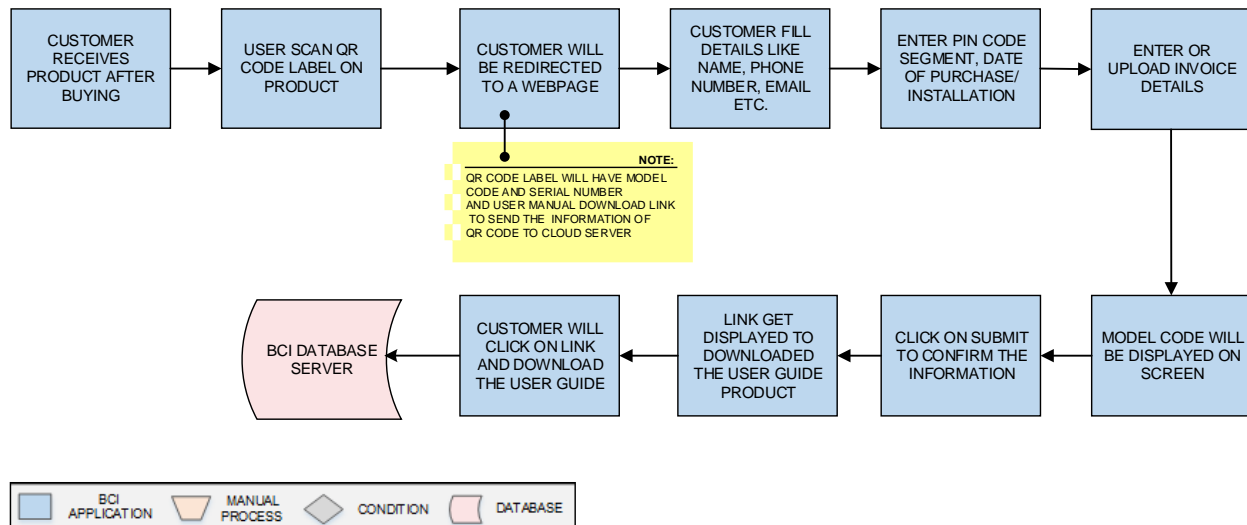
Activities

Module Description	This module shows the process when Product reaches customer/ consumer, he needs to scan the QR Code. Web Link in QR Code will redirect the Customer on Blue Star's Website Web Page. Customer is required to fill up the form and download the User Manual.

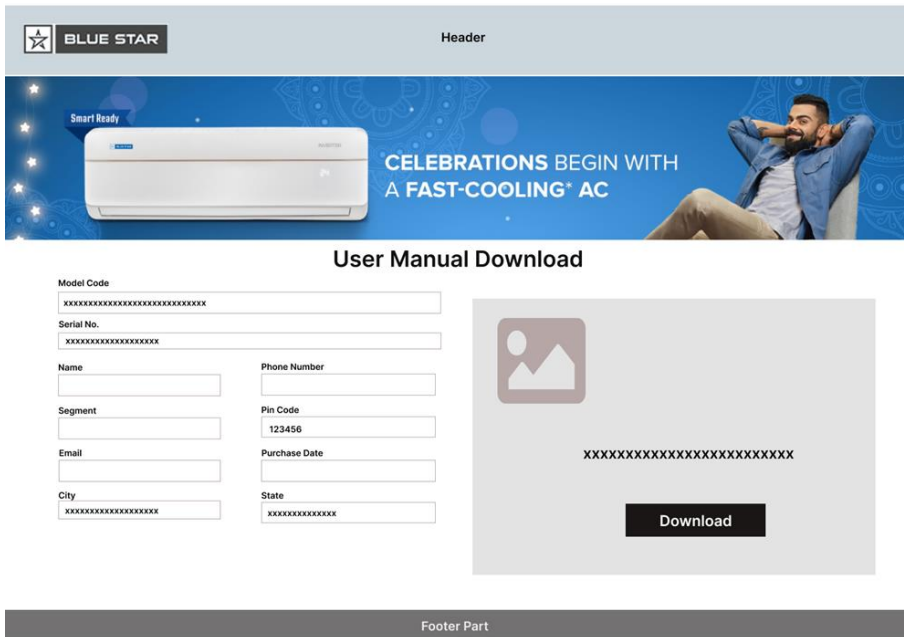| Pre-Conditions	1. Product received to customer to be sealed packed.
	2. Customer should scan the QR code label on product/ box.

Process Steps	1. Product will be delivered to the customer.
	2. Use his smartphone to scan a product's QR code label.
	3. The QR code's link will take the user to a web page.
	QR code label will have model Code and serial number and User Manual Download application link to send the information of QR code to Cloud server.
	4. A form and the product's model code will be shown on the website.
	5. The customer must input their Name, Phone Number, Email Address, Segment, Pin Code, Purchase/Installation Date, and other information.
	6. The system will automatically fill the City and State text fields based on Pin code.
	7. When the product's QR code is scanned, the Model Code and Serial Number are automatically filled in.
	8. Following completion of the form's fields, the consumer submits it.
	9. A link to download the user guide will appear.

	10. Customer will download the manual.
	11. Corresponding details will get saved in database.

Post-Conditions	1. Customer entered information will get saved in database.
	2. Download manual to be in PDF format.

Validations	1. An alert should be displayed in QR Code label not scanned properly.
	2. An alert should be displayed in case invalid model code and serial number.
	3. An alert message is displayed in case of any error / invalid activity.

Sample Screen	

Remarks	Add any remark (If needed).

8.4.3 VIEW CUSTOMER DETAILS

| BLUESTAR PERSON LOGIN TO WEB PORTAL | → | LIST OF CLIENT DOWNLOADED THE MANUAL DISPLAYED | → | DISPLAYS TABULAR REPORT WITH ALL CUSTOMER NAMES AND ITS DETAILS | → | CUSTOMER NAME, LOCATION, PHONE, INVOICE AND MODEL DETAILS ARE DISPLAYED ON SCREEN | → | CLICK ON EXPORT TO DOWNLOAD DETAILS IN SPECIFIED FORMAT | → | BCI DATABASE SERVER |

| | BCI APPLICATION | | MANUAL PROCESS | | CONDITION | | DATABASE |

Activities

Module Description	Users of Blue Star will be able to view and export customer information in excel/csv format from this module who have downloaded the product's user manual. This will give Blue Star a complete perspective of the customers.

Pre-Conditions	1. Check particular user manual against model no is downloaded by customer.

Process Steps	1. Blue Star User will login to the web portal.
	2. A tabular format get displayed on screen with all customer details filled while user manual download form.
	3. The following information is shown on the screen: Customer Name, Location (City, State, and Pin code), Invoice Number, Product Model Code, Serial Number, Phone Number, and Email.
	4. Click on export to download the details.
	5. Users can export details in a in excel/ csv format.

Post-Conditions	1. Customer details can be filter by user.
	2. Customer can download the data if required.

Validations	1. An alert message is displayed in case of any error / invalid activity.

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Sample Screen	
	View Customer Details 👤

Filter   📄 Download

Sr. No.	Customer Name	Pincode	Invoice No.	Model Code	Serial No.	Phone No.	Email	
1	xxxxxxx	xxxx-xxx-xxx	xxxxxx-xxxxxx	xxxxxxxxx	xxxxxxxx	xxxxxxxx	xxxx@xxxx	👁
2	xxxxxxx	xxxx-xxx-xxx	xxxxxx-xxxxxx	xxxxxxxxx	xxxxxxxx	xxxxxxxx	xx@xxxx	👁

Remarks	Add any remark (If needed).

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9 SRS SCOPE CHANGE PROCESS

9.1 BEFORE SIGN OFF

Any changes in SRS need to be informed in writing by Blue Star India. It will be incorporated / confirmed only after doing detailed feasibility study by BCI.

- If any change is out of scope then this would be done as a CR post feasibility and priority will be decided based on mutual agreement.
- Once the change is developed , any further change in the same would be considered as a CR

9.2 AFTER SIGN OFF

Any changes in proposed solution after approval of this document by Blue Star India are subjected to confirmation from BCI, taking feasibility constraints into account. These changes will be incorporated (if any) into the solution only after delivering proposed solution & may be charged as extra.

- Any change in the proposed solution due to customer system design or process will be considered as CR
- Any process which is not mentioned in this document will not be considered as "mutual understanding or default presence or standard practice".

The changes in proposed solution before & after acceptance will be mutually agreed and duly signed and accepted by Blue Star India & BCI.

9.3 SRS ACCEPTANCE

Agreed and Accepted by Blue Star India and Bar Code India

For Blue Star India   **For Bar Code India (BCI)**

Name: **Name:**

Designation: **Designation:**

Department: **Department:**