DESIGN OF PROFESSIONAL FUNCTIONS

SCEM

Version: 1.0.0

January 20, 2022

Document change log

*A – Create New, M – Update, D – Delete

Date change	Location change	(A,M,D)	Corrector	Old version	Description change	New version
20/01/2022		A	HANM	--	Create New	V1.0.0

SCEM- Smart Construction Equipment Management
420 – 744 West Hastings, Vancouver, BC, V6C 1A5
Application Version: 1.0.0

Designed by VCA International Inc. for SCEM

150 King Street West, Toronto, ON M5H 1J9

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I. INTRODUCTION

1. Purpose of the document

- This document is used as the basis for the deployment team to analyze and design the system.

2. Document scope

- The document describes the functionality of the SCEM application in detail.

3. Objects using the document

- The object of using the document is the implementation staff, the project development team.

4. Expected results after implementation

- The system meets the functional requirements according to the given business documents.

5. Definition of terms and abbreviations

Terminology	Define
KH	Cusomer
AC	App Client
AS	App Server
CS	Core SCEM
WC	Web Client

II. PROFESSIONAL DETAILS APP

1. Signup

- **Purpose:** Customers register to use SCEM application.
- **Participating actor:** Customer, App Client, Core SCEM.

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- **Pre-conditions:** Customers successfully access SCEM App.
- **Desired results:** Customers have successfully registered for an account and can use the functions on the SCEM application.

1.1. Screen Flow

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1.2. Screen Description

#	Category	Control Type	Datatype	Default Value	Description
1	Back	Icon	N/A	--	Back to Home screen
2	Ttitle	Label	Text	--	*"SignUp"*
3	SubTitle	Label	Text	--	
4	FullName	TextBox	Text	--	
5	Email	TextBox	Text	--	
6	Password	TextBox	Text	--	
7	Confirm Password	TextBox	Text	--	
8	Agree to the terms and conditions of SCEM	Radio button	N/A	Checked	
9	SignUp	Button	N/A	--	Click to register
10	SignIn in With Facebook	Button	N/A	--	Click to SignIn with Facebook social
11	SignIn in With Google	Button	N/A	--	Click to SignIn with Google social

1.3. Processing Logic

Step	Operation	Perform	Description
1	Initialize screen	KH	Customer choose "SignUp"
		AC	App Client initialization of registration screen
2	Customer click "SignUp"	AC	Enter information and press SignUp
		CS	Receive information and process information: **- If the email already exists:**

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			• Return notice to AC "Account already exists, please register another account." **- If the email does not exist yet:** • The system registers an account for the customer and sends a successful registration email to the customer's email. • Return successful registration information to customer. ➢ Return test results to App Client.
		AC	Check the returned result: **- Not valid:** • Show notification for customer **- Valid:** Display success message and transfer customer to HOME screen.
3	Customers press register with Google or Facebook	AC	Get token information from Google or Facebook and use that token to transmit to Server

		CS	Receive information and process information:
			 Use the token that the Client transmits and then call the API to Google or Facebook to get email information, fullname according to the token
			 - If the email already exists:
			 • Check if your account is active or not?
			     o If active: Return information to Client
			     o If the account is locked: Return notification to the Client "Your Account has been Closed or Locked. Please contact email {email_support}"
			 - If the email does not exist yet:
			 • The system registers an account for the customer and sends a successful registration email to the customer's email.
			 • Return successful registration information to customer.
			 Return test results to App Client.

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		AC	Check the returned result: **- Not valid:** • Show notification for KH **- Valid:** Display success message and transfer customer to HOME screen.

2. **Login**

- **Purpose:** Customers log in to use SCEM application.
- **Participating actor:** Customer, App Client, Core SCEM.
- **Pre-conditions:** Customers successfully access SCEM App.
- **Desired results:** Customers log in to their account successfully and can use the functions on the SCEM application.

2.1. Screen Flow

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2.2. Screen Description

#	Category	Control Type	Datatype	Default Value	Description
1	Back	Icon	N/A	--	Back to Home screen
2	Ttitle	Label	Text	--	*"Login"*
3	SubTitle	Label	Text	--	
4	Email	TextBox	Text	--	
5	Password	TextBox	Text	--	

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6	SignIn	Button	N/A	--	Click to sign in
7	Forgot password	Link	N/A	--	Change screen Forgot password
8	Sign Up	Link	N/A	--	Change screen SignUp
9	SignIn in With Facebook	Button	N/A	--	Click to SignIn with Facebook social
10	SignIn in With Google	Button	N/A	--	Click to SignIn with Google social

2.3. Processing Logic

Step	Operation	Perform	Description
1	Initialize screen	KH	Customer choose "Login"
		AC	App Client initiates the login screen
2	Customer click "SignIn"	AC	Customer Enter information and press SignIn
		CS	Receive information and process information: **- If the email does not exist yet:** • Return notice to AC "Account does not exist, please check again". **- If the password is incorrect:** • Return notice to AC "Password is incorrect, please check again". **- If the account has been locked:** • Return notice to AC "Account has been locked, please contact email {email_support}." **- If the information is correct and the account is active:** • Return test results to App Client.
		AC	Check the returned result: **- Not valid:**

			• Show notification for KH **- Valid:** Display success message and transfer customer to HOME screen.
3	Customers press register with Google or Facebook	AC	Get token information from Google or Facebook and use that token to transmit to Server

		CS	Receive information and process information:
			Use the token that the Client transmits and then call the API to Google or Facebook to get email information, fullname according to the token
			- If the email already exists:
			    • Check if your account is active or not?
			        ○ If active: Return information to Client
			        ○ If the account is locked: Return notification to the Client "Your Account has been Closed or Locked. Please contact email {email_support}"
			- If the email does not exist yet:
			    • The system registers an account for the customer and sends a successful registration email to the customer's email.
			    • Return successful registration information to customer.
			Return test results to App Client.

		AC	Check the returned result: **- Not valid:** • Show notification for KH **- Valid:** Display success message and transfer customer to HOME screen.

3. **Forgot password**

- **Purpose:** Customer recovers password on SCEM application.

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- **Participating actor:** Customer, App Client, Core SCEM.
- **Pre-conditions:** Customers successfully access SCEM App.
- **Desired results:** Customer successfully retrieved account password.

3.1. Screen Flow

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← Forgot password

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Lorem ipsum dolor sit amet

Email

Forgot

← Forgot password

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Lorem ipsum dolor sit amet

tonyxscem@gmail.com

Forgot

3.2. Screen Description

#	Category	Control Type	Datatype	Default Value	Description

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1	Back	Icon	N/A	--	Back to Login screen
2	Ttitle	Label	Text	--	*"Forgot Password"*
3	SubTitle	Label	Text	--	
4	Email	TextBox	Text	--	
5	Forgot	Button	N/A	--	Click to forgot

3.3. Processing Logic

Step	Operation	Perform	Description
1	Initialize screen	KH	Customer choose "Forgot Password"
		AC	App Client initiates password reset screen
2	Customer click "Forgot"	AC	Enter your email and press Forgot
		CS	Receive information and process information: **- If the email does not exist yet:** • Return notice to AC "Account does not exist, please review." **- If the account has been locked:** • Return notice to AC "Account has been locked, please contact email {email_support}." **- If the information is correct and the account is active:** • Return test results to App Client.
		AC	Check the returned result: **- Not valid:** • Show notification for customer **- Valid:** Show notification "OTP to retrieve the password sent to the mailbox {email}" and transfer customer to Reset Password screen.

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4. **Reset Password**

- **Purpose:** Customer updates password on SCEM application.
- **Participating actor:** Customer, App Client, Core SCEM.
- **Pre-conditions:** Customers successfully access SCEM App.
- **Desired results:** Customer successfully updated the password of the account.

4.1. Screen Flow

4.2. Screen Description

#	Category	Control Type	Datatype	Default Value	Description
1	Back	Icon	N/A	--	Back to Forgot Password
2	Ttitle	Label	Text	--	*"Reset Password"*
3	SubTitle	Label	Text	--	
4	Email	TextBox	Text	--	Email entered in the Forgot Password screen
5	OTP	TextBox	Text	--	OTP code in email
6	Password	TextBox	Text	--	
7	Confirm Password	TextBox	Text	--	
8	Reset	Button	N/A	--	Click to reset

4.3. Processing Logic

Step	Operation	Perform	Description
1	Initialize screen	KH	
		AC	App Client initiates Reset Password screen
2	Customer click "Reset"	AC	Enter information and press Reset
		CS	Receive information and process information: **- If OTP is incorrect:** • Return notice to AC "OTP retrieve incorrect password. Please provide the correct OTP information sent in the email." **- If the OTP expires:** • Return notice to AC "Your OTP has expired, please try again Forgot Password" **- If the information is correct:**

			• The system updates the password for Customer. • Mark OTP as expired. • Automatically login for customers with new password ➤ Return test results to App Client.
		AC	Check the returned result: **- Expired OTP:** • Show notification for Customer and return to Forgot Password screen **- Valid:** Display success message and transfer customer to HOME screen.

5. **Home**

- **Purpose:** Customers use on SCEM application.
- **Participating actor:** Customer, App Client, Core SCEM.
- **Pre-conditions:** Customers successfully access SCEM App.
- **Desired results:** Customers can use the functions on SCEM application.

5.1. Screen Flow

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Screen 1 (Login/Register)

SCEM

[Login] [Register]

AI Suggestions
Equipment A needs urgent maintenanceto avoid future breakdown. ➤

- Company
- Equipment
- For Rent
- Marketplace

Rent my equipment

Equipment for rent

Company Management

Company Profile

User group

User management

🏠 ☰ ⚖ 🔔 👤

Screen 2 (Logged in)

SCEM

Good Morning
David

AI Suggestions
Equipment A needs urgent maintenanceto avoid future breakdown. ➤

- Company
- Equipment
- For Rent
- Marketplace

Rent my equipment

Equipment for rent

Company Management

Company Profile

User group

User management

Equipment Management

Equipment Group

Equipment Management

Site and Tracking link

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5.2. Screen Description

#	Category	Control Type	Datatype	Default Value	Description
1	Logo	Icon	N/A	--	Logo SCEM
2	Login	Button	N/A	--	*"Login"*
3	Register	Button	N/A	--	"Register"
4	Box AI suggestions	Box	Text	--	
5	Company	Button	N/A	--	Redirect to "Company Profile"
6	Equipment	Button	N/A	--	Redirect to "Equipment Managerment"
7	For Rent	Button	N/A	--	Redirect to "Rent my equipment"
8	Marketplace	Button	N/A	--	Redirect to "Marketplace"
9	Rent my equipment	Link	N/A	--	Redirect to "Rent my equipment"
10	Equipment for rent	Link	N/A	--	Redirect to "Equipment for rent"
11	Company Profile	Link	N/A	--	Redirect to "Company Profile"
12	User Group	Link	N/A	--	Redirect to "User Group"
13	User Managerment	Link	N/A	--	Redirect to "User Managerment"
14	Equipment Group	Link	N/A	--	Redirect to "Equipment Group"
15	Equipment Managerment	Link	N/A	--	Redirect to "Equipment Managerment"
16	Site And Tracking Link	Link	N/A	--	Redirect to "Site And Tracking Link"
17	Home	Icon	N/A	--	Redirect to "Home"
18	Search	Icon	N/A	--	Redirect to "Search"
19	Marketplace	Icon	N/A	--	Redirect to "Marketplace"
20	Notification	Icon	N/A	--	Redirect to "Notification"

21	User	Icon	N/A	--	Redirect to "User"

5.3. Processing Logic

Step	Operation	Perform	Description
1	Initialize screen	KH	
		AC	App Client initializes the Home screen **- If token exists:** • Send token information to CS to get User information. **- If the token does not exist:** • Show default information when not logged in. Submit token information to CS to get AI suggestions (even without tokens)
		CS	<u>Receive information and process information:</u> **- Valid tokens:** • Return User information and AI suggestions back to Client **- Valid token:** • Return system default AI suggestion information to Client.

6. Marketplace

- **Purpose:** Customers can view rental equipment.
- **Participating actor:** Customer, App Client, Core SCEM.
- **Pre-conditions:** Customers successfully access SCEM App.
- **Desired results:** Customers can find given devices on SCEM app.

6.1. Screen Flow

6.2. Screen Description

#	Category	Control Type	Datatype	Default Value	Description

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1	Avatar	Picture	N/A	--	Display photo of customer account or default avatar image (if not logged in)
2	Search	Icon	N/A	--	Redirect to "Search"
List of rental equipment					
1	Picture	Picture	N/A	--	
2	Title	Label	Text	--	
3	Description	Label	Text	--	
4	User FullName	Link	N/A	--	
5	Date	Label	N/A	--	

6.3. Processing Logic

Step	Operation	Perform	Description
1	Initialize screen	KH	Customer choose icon "Marketplace" from Home Screen
		AC	App Client sends request to CS to get the list
		CS	Query information and return results sorted by most recent posts.
2	Scroll	AC	Send information to load more records by page
		CS	Make information queries by page and return information to the Client to display

7. Search

- **Purpose:** Customers search for rental equipment on SCEM application.
- **Participating actor:** Customer, App Client, Core SCEM.
- **Pre-conditions:** Customers successfully access SCEM App.
- **Desired results:** Customers can find given devices on SCEM app.

7.1. Screen Flow

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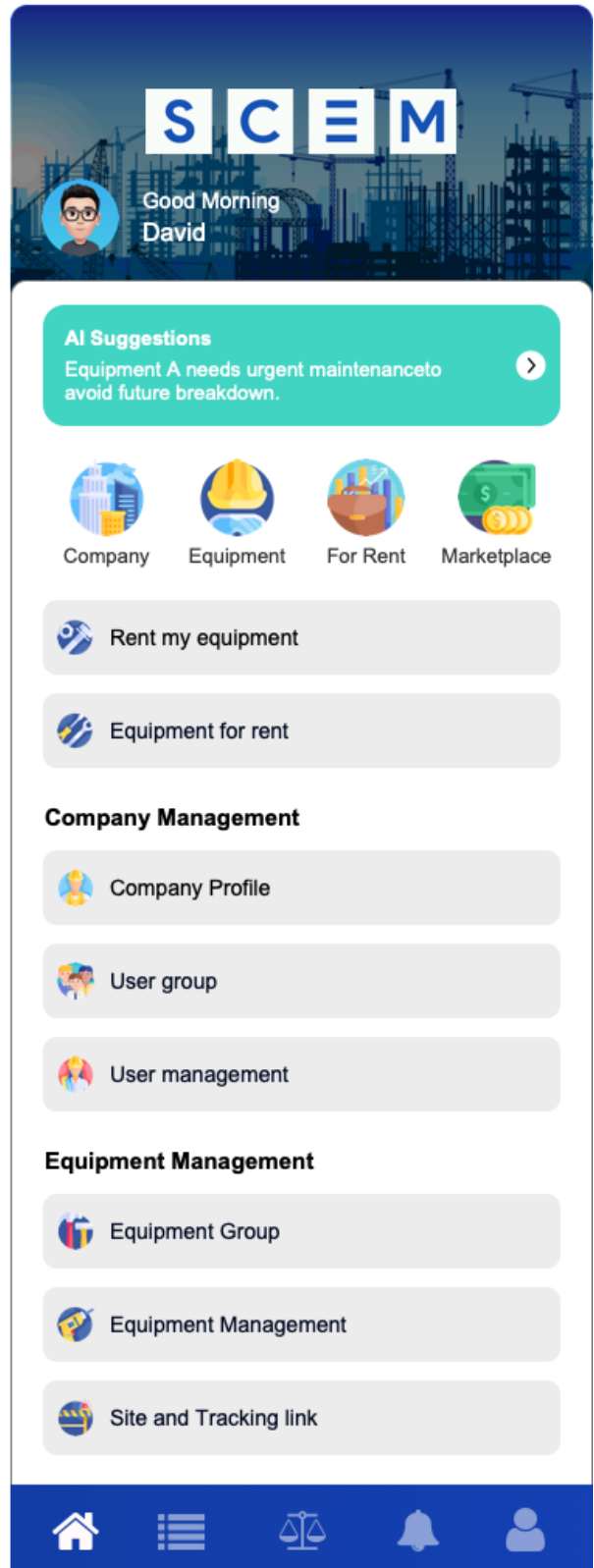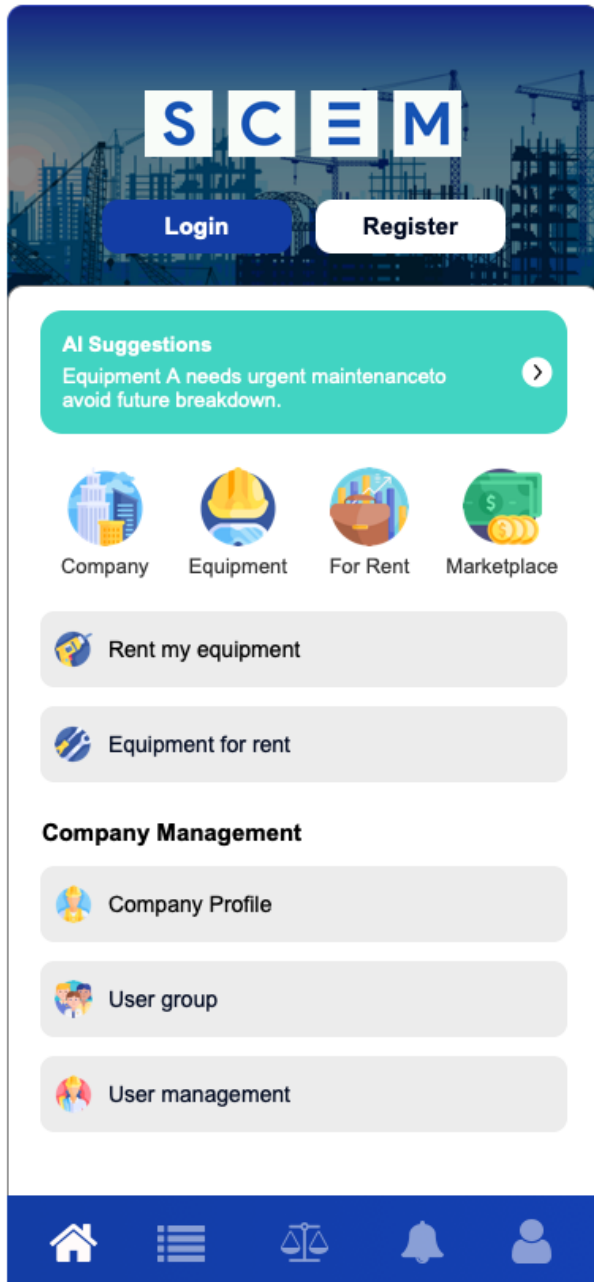
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← **Search**

Name

Equipment type

All ▾

Site

All ▾

Description

From Date

To Date

📅

📅

Search

GPS Navigation Gear
We rent GPS and satellite devices via
nationwide shipping or local pickup ...

👤 David   12/12/2021 22:10

GPS Navigation Gear
We rent GPS and satellite devices via
nationwide shipping or local pickup ...

👤 David   12/12/2021 22:10

GPS Navigation Gear
We rent GPS and satellite devices via
nationwide shipping or local pickup ...

👤 David   12/12/2021 22:10

GPS Navigation Gear
We rent GPS and satellite devices via
nationwide shipping or local pickup ...

👤 David   12/12/2021 22:10

7.2. Screen Description

#	Category	Control Type	Datatype	Default Value	Description
1	Back	Icon	N/A	--	Back to Marketplace screen
2	Ttitle	Label	Text	--	*"Search"*
4	Name	TextBox	Text	--	
5	Equipment type	Dropdown	N/A	--	Get the list of configured Equipment Types
6	Site	Dropdown	Text	--	Get the list of Configured Sites
7	FromDate	DateTime	Date	T-7	
8	ToDate	DateTime	Date	T	
9	Search	Button	N/A	--	
List of rental equipment					
1	Picture	Picture	N/A	--	
2	Title	Label	Text	--	
3	Description	Label	Text	--	
4	User FullName	Link	N/A	--	
5	Date	Label	N/A	--	

7.3. Processing Logic

Step	Operation	Perform	Description
1	Initialize screen	KH	Customer click "Search" from Marketplace Screen
		AC	App Client sends request to CS to get the list
		CS	Query information and return results sorted by most recent posts.
2	Customer click "Search"	AC	Select information to search
		CS	Receive information and process information:

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			- Search for information by client submissions: • "Name": Approximate search by name • "Equipment Type": Exact search • "Site": Exact search • "FormDate": Search by time period • "ToDate": Search by time period ➢ Query information and return results sorted in order of most recent posts.
		AC	<u>Check the returned result:</u> **- No data:** • Display content: "No data matches the search data" **- There is data:** Display data returned by CS

8. **Past rentals**

- **Purpose:** Customers accessing a member's rental equipment on the SCEM app.
- **Participating actor:** Customer, App Client, Core SCEM.
- **Pre-conditions:** Customers successfully access SCEM App.
- **Desired results:** Customers find any member's rental equipment on the SCEM application.

8.1. Screen Flow
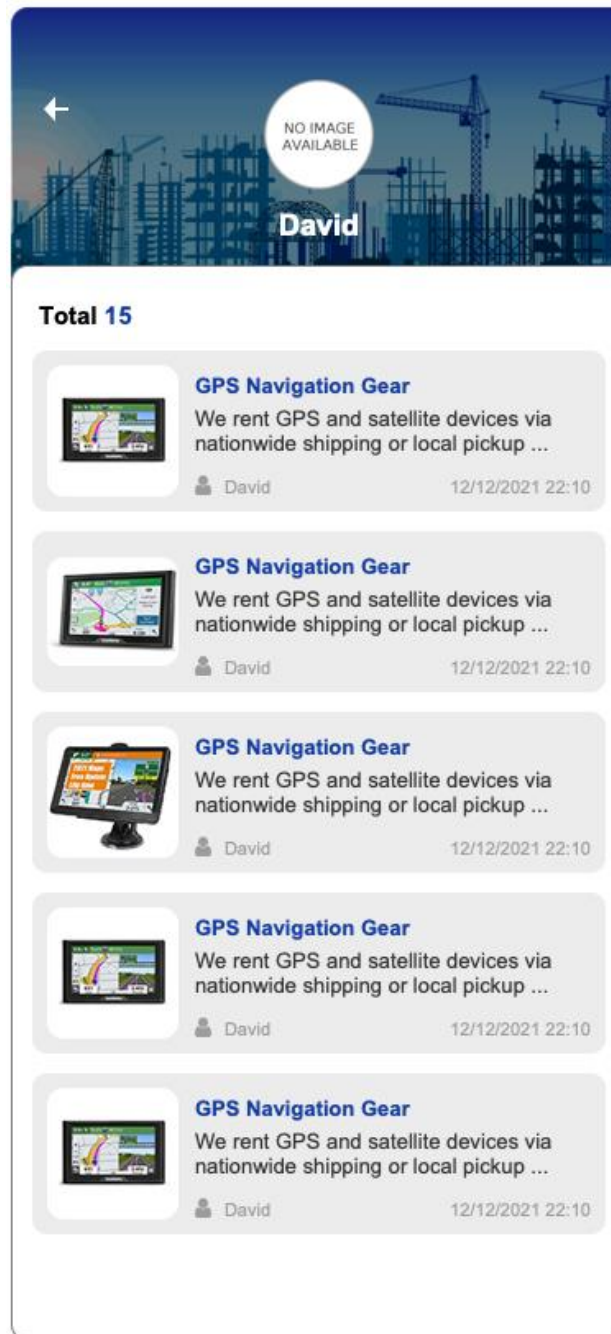
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8.2. Screen Description

#	Category	Control Type	Datatype	Default Value	Description
1	Back	Icon	N/A	--	Back to Home screen
2	Avatar	Picture	N/A	--	The customer avatar is viewing
3	FullName	Label	Text	--	Name of customer viewing
4	Total Number	Label	Text	--	Total number of rental equipment customers are viewing
List of rental equipment					
1	Picture	Picture	N/A	--	
2	Title	Label	Text	--	
3	Description	Label	Text	--	
4	User FullName	Link	N/A	--	
5	Date	Label	N/A	--	

8.3. Processing Logic

Step	Operation	Perform	Description
1	Initialize screen	KH	Customer click FullName in List
		AC	Submit information to CS to get information • Account information Customer is viewing • List of equipment customers are renting
		CS	Query information to return client • Query customer information currently viewing (Avatar, FullName) • Query the list sorted in order from the latest update date to the furthest. Return test results to App Client.

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9. **Equipment Details**

- **Purpose:** Customers view details of a rental device on the SCEM application.

- **Participating actor:** Customer, App Client, Core SCEM.

- **Pre-conditions:** Customer access SCEM App successfully, customers log in successfully.

- **Desired results:** Customers can view detailed and rentable information of all rental equipment on SCEM application.

9.1. Screen Flow

← GPS Navigation Gear

◄ 1 of 3 ►

We rent GPS and satellite devices via nationwide shipping or local pickup at our retail store. In addition to camping gear sales and rentals, we have for many years rented GPS navigation units for everything from a backcountry hike in the Sierras to driving the streets of Budapest. We feature Garmin handhelds for geocaching and trail use; Magellan and Garmin units for travel in the US and Canada, and Garmin units for international travel. Also check out the SPOT and InReach rescue devices to stay in touch with friends and family when out in the hinterlands.

We've probably rented more GPS units over the years than anyone else on the web and will be glad to answer any...abel

25$/per day
150$/per week
500$/per month

Owner

| David | view all rent |

Company Management

Name	Garmin GPS
Manufacturer	Garmin
Warranty	24 month
Description	You can stay a map-and-compass purist if you want, but looking down at a GPS unit, and within a few seconds knowing exactly where you are, how far it is to the next camp or landmark, how much elevation change you have left, and how much longer it will take is pretty nifty to me. The eTrex we rent is also the easiest to use and is great for group training, company and youth events and geocaching.
Suggested Maintenance	You can stay a map-and-compass purist if you want, but looking down at a GPS unit, and within a few seconds knowing exactly where you are, how far it is to the next camp or landmark, how much elevation change you have left, and how much longer it will take is pretty nifty to me. The eTrex we rent is also the easiest to use and is great for group training, company and youth events and geocaching.
Document	abc.pdf
Birth Certificate	nbc.pdf

Rent

9.2. Screen Description

#	Category	Control Type	Datatype	Default Value	Description
1	Back	Icon	N/A	--	Back to Marketplace
2	Ttitle	Label	Text	--	Title of post
3	Picture	Slide	N/A	--	Display a list of photos in slide format
4	Description	Label	Text	--	
5	Price	Label	Text	--	
Owner					
1	Picture	Picture	N/A	--	
2	FullName	Label	N/A	--	
3	View all rent	Link	N/A	--	Redirect to Past rentals
Company Management					
1	Name	Label	N/A	--	
2	Manufacture	Label	N/A	--	
3	Warranty	Label	N/A	--	
4	Description	Label	N/A	--	
5	Suggested Maintenance	Label	N/A	--	
6	Document	Link	N/A	--	
7	Birth Certificate	Link	N/A	--	
Rent					
1	FromDate	Date	N/A	T-7	
2	ToDate	Date	N/A	T	
3	Rent	Button	N/A	--	Click to Rent

9.3. Processing Logic

Step	Operation	Perform	Description
1	Initialize screen	KH	Customer choose one item from Marketplace
		AC	App Client initializes Equipment Details screen, sends information to CS to get detailed information according to EquimentId
		CS	- Receive information and query information according to EquimentId and return it to App Client. - Query the list of reviews (displayed according to the nearest to farthest time) and return it to the Client
		AC	- If the account is in the rental period of this device, the Review form will be displayed. - If you are not renting, display the Rent form
2	Customer click "Rent"	AC	Enter the start and end date information you want to rent
		CS	Receive information and process information: **- Check device availability:** • If the rental period is within the Maintenance period, return the notice "The rental period of the equipment is within the maintenance period from {fromDate} – {toDate}. Please choose again." • If the rental period is within the period already occupied by another customer, return the notice "The equipment rental period is within the unavailable period {fromDate} – {toDate}. Please choose again." • If available: Update rental information for customers in Database and return notification to AppClient "Congratulations on your successful equipment rental" Return test results to App Client.
		AC	Check the returned result: **- Not valid:**

			• Show notification for Customer
			- Valid: Display a success message and transfer the customer to the Equipment For Rent screen.

10. Review

- **Purpose:** Customers can view reviews on SCEM application.
- **Participating actor:** Customer, App Client, Core SCEM.
- **Pre-conditions:** Customer access SCEM App successfully, customers log in successfully.
- **Desired results:** Customers can see the reviews, and can rate if the customer has rented this device on the application on the SCEM application.

10.1. Screen Flow

← **GPS Navigation Gear**

◀ 1 of 3 ▶

We rent GPS and satellite devices via nationwide shipping or local pickup at our retail store. In addition to camping gear sales and rentals, we have for many years rented GPS navigation units for everything from a backcountry hike in the Sierras to driving the streets of Budapest. We feature Garmin handhelds for geocaching and trail use; Magellan and Garmin units for travel in the US and Canada, and Garmin units for international travel. Also check out the SPOT and InReach rescue devices to stay in touch with friends and family when out in the hinterlands.

We've probably rented more GPS units over the years than anyone else on the web and will be glad to answer any...abel

25$/per day

Company Management

Name	Garmin GPS
Manufacturer	Garmin
Warranty	24 month
Description	You can stay a map-and-compass purist if you want, but looking down at a GPS unit, and within a few seconds knowing exactly where you are, how far it is to the next camp or landmark, how much elevation change you have left, and how much longer it will take is pretty nifty to me. The eTrex we rent is also the easiest to use and is great for group training, company and youth events and geocaching.
Suggested Maintenance	You can stay a map-and-compass purist if you want, but looking down at a GPS unit, and within a few seconds knowing exactly where you are, how far it is to the next camp or landmark, how much elevation change you have left, and how much longer it will take is pretty nifty to me. The eTrex we rent is also the easiest to use and is great for group training, company and youth events and geocaching.
Document	abc.pdf
Birth Certificate	nbc.pdf

Review

David
★★★★½

Content review

Review

Anna ★★★★½
We rent GPS and satellite devices via nationwide shipping or local pickup ...
12/12/2021 22:10

Jony ★★★★½
We rent GPS and satellite devices via nationwide shipping or local pickup ...

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10.2. Screen Description

#	Category	Control Type	Datatype	Default Value	Description
1	Back	Icon	N/A	--	Back to Marketplace
2	Ttitle	Label	Text	--	*"SignUp"*
2	Ttitle	Label	Text	--	Title of post
3	Picture	Slide	N/A	--	Display a list of photos in slide format
4	Description	Label	Text	--	
5	Price	Label	Text	--	
Owner					
1	Picture	Picture	N/A	--	
2	FullName	Label	N/A	--	
3	View all rent	Link	N/A	--	Redirect to Past rentals
Company Management					
1	Name	Label	N/A	--	
2	Manufacture	Label	N/A	--	
3	Warranty	Label	N/A	--	
4	Description	Label	N/A	--	
Review					
1	Avatar	Picture	N/A	--	Avatar of the visitor
2	FullName	Label	N/A	--	FullName of the visitor
3	Star	Icon	N/A	--	Vote by default 5 stars
4	Content	TextArea	Text	--	Min 10 charter
5	Review	Button	N/A	--	Click to send Review

List Review					
1	Avatar	Picture	N/A	--	
2	FullName	Label	N/A	--	
3	Star	Icon	N/A	--	
4	Content	Label	Text	--	
5	Date	Button	N/A	--	Click to send Review

10.3. Processing Logic

Step	Operation	Perform	Description
1	Initialize screen	KH	Customer choose one item from Marketplace
		AC	App Client initializes Equipment Details screen, sends information to CS to get detailed information according to EquimentId
		CS	- Receive information and query information according to EquimentId and return it to App Client. - Query the list of reviews (displayed according to the nearest to farthest time) and return it to the Client
		AC	- If the account is in the rental period of this device, the Review form will be displayed. If you are not renting, display the Rent form
2	Customer click "Review"	AC	Enter information and press Review
		CS	Record information into the database and return the information to the Client for successful recording
		AC	Check the returned result: **- Not valid:** • Show notification for customer **- Valid:** Show append to the review list

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11. Equipment for rent

- **Purpose:** Customers can rent equipment on SCEM application.

- **Participating actor:** Customer, App Client, Core SCEM.

- **Pre-conditions:** Customer successfully login on SCEM application.

- **Desired results:** Customers can manage and register for equipment rental on SCEM application.

11.1.   Screen Flow

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← For Rent

Equipment

Product 1 ▼

Title

Other information

Daily price

Weekly price

Monthly price

From Date   To Date

12/12/2021

Pictures

● ● ●

Post   Clear

← Equipment for rent

#	Title	Price	Expired	
1	For Rent A1 GPS	25$	31/12/2021	▶
2	For Rent A1 GPS	30$	31/12/2021	▶
3	For Rent A1 GPS	30$	31/12/2021	▶
4	For Rent A1 GPS	25$	31/12/2021	▶
5	For Rent A1 GPS	25$	31/12/2021	▶

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11.2. Screen Description

#	Category	Control Type	Datatype	Default Value	Description
1	Back	Icon	N/A	--	Back to Home screen
2	Ttitle	Label	Text	--	*"Manager for rent"*
3	Add	Button	N/A	--	Add new
List					
1	Title	TextBox	Text	--	
2	Price	TextBox	Text	--	
3	Status	TextBox	Text	--	
4	Action	Icon	N/A	--	
Create Or Edit					
1	Equipment	Dropdown	Text	--	- Equipment list is sorted in alphabetical order, When editing will not be edited
2	Title	TextBox	Text	--	
3	Other information	TextBox	Text	--	
4	Daily Price	TextBox	Text	--	
5	Daily Price	TextBox	Text	--	
6	Weekly Price	TextBox	Text	--	
7	Monthly Price	TextBox	Text	--	
8	FromDate	TextBox	Date	T-7	
9	ToDate	TextBox	Date	T	
10	Picture	Picture	N/A	--	
11	Post	Button	N/A	--	When editing, the text button is displayed as "Update"
12	Clear	Button	N/A	--	Reset all field empty

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11.3. Processing Logic

Step	Operation	Perform	Description
1	Initialize screen	KH	Customer choose "List" from Home screen
		AC	App Client initiates the Equipment for rent screen - Submit an information query to CS to get a list of posts
		CS	Receive information and process information: • Query and return a list of posts sorted by time from nearest to furthest ➢ Return test results to App Client.
		AC	Check the returned result: **- Not valid:** • Show notification for customer **- Valid:** Show list
2	Add Or Edit Screen	KH	Customer choose "Add" or "Edit" from List
		AC	App Client initiates the corresponding Add Or Edit screen - Send an information query to CS to get a list of Equipment or get information of a post (if in edit mode)
		CS	Receive information and process information: • Query and return a list of Equipment sorted alphabetically • Return post information if in Edit mode ➢ Return test results to App Client.
		AC	Check the returned result: **- Not valid:** • Show notification for customer **- Valid:** Display information
3	Customer click "Post"	KH	Enter information on the form

		AC	Send information to CS for information processing
		CS	Receive information and process information: • Check the time FromDate – ToDate is within the Maintenance period, then the message will be displayed "Posting time is within the maintenance period of the device" • If the time is within the time of the previous posts, the message will be displayed "This post has been posted at this time, please check again" • Valid: Update information in database and return results to App Client
		AC	Check the returned result: **- Invalid:** • Show notification for customer **- Valid:** Successful message and return to the list screen
4	Customer click "Update"	KH	Update information on the form
		AC	Send information to CS for information processing
		CS	Receive information and process information: • Check the time FromDate – ToDate is within the Maintenance period, then the message will be displayed "Posting time is within the maintenance period of the device" • If the time is within the time of the previous posts, the message will be displayed "This post has been posted at this time, please check again" • If the time is not valid with the time the customer is renting this device, the message will be displayed "This device of Customer is rented for the period {fromDate} – {toDate}. Please check again" • Valid: Update information in database and return results to App Client

		AC	Check the returned result:
			- Not valid:
			• Show notification for customer
			- Valid: Successful message and return to the list screen

12. Equipment currently on rent

- **Purpose:** Customers view devices being leased on the SCEM application.
- **Participating actor:** Customer, App Client, Core SCEM.
- **Pre-conditions:** Customer successfully login on SCEM application.
- **Desired results:** Customers monitor rental equipment on SCEM application.

12.1. Screen Flow

12.2. Screen Description

#	Category	Control Type	Datatype	Default Value	Description
1	Back	Icon	N/A	--	Back to Home screen
2	Ttitle	Label	Text	--	*"Equipment currently on rent"*
List					

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1	Name	Label	Text	--	
2	Price	Label	Text	--	
3	Renter	Label	Text	--	
4	Action	Label	Text	--	Redirect to Details

12.3. Processing Logic

Step	Operation	Perform	Description
1	Initialize screen	KH	Customer choose "List" from Home screen
		AC	App Client initializes the Equipment currently on rent screen - Submit an information query to CS to get the list of rentals
		CS	Receive information and process information: • Query and return a list of rental devices sorted by time from nearest to furthest Return test results to App Client.
		AC	Check the returned result: **- Not valid:** • Show notification for customer **- Valid:** Show list

13. My rental management

- **Purpose:** Customers view rented equipment on SCEM application.
- **Participating actor:** Customer, App Client, Core SCEM.
- **Pre-conditions:** Customer successfully login on SCEM application.
- **Desired results:** Customers view devices that are on the SCEM application.

13.1. Screen Flow

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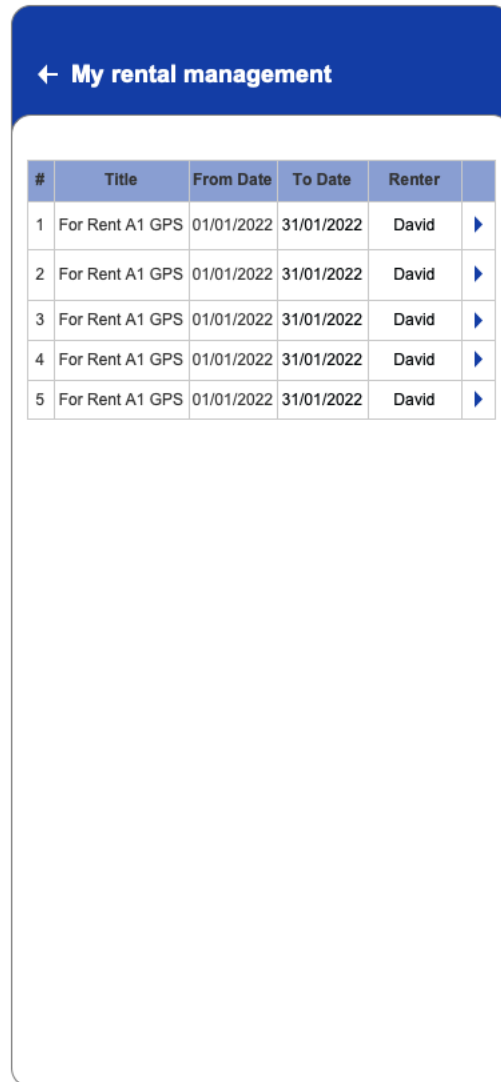
13.2. Screen Description

#	Category	Control Type	Datatype	Default Value	Description
1	Back	Icon	N/A	--	Back to Home screen
2	Ttitle	Label	Text	--	*"My rental management"*
Table					

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1	Title	Label	Text	--	
2	FromDate	Label	Text	--	
3	ToDate	Label	Text	--	
4	Renter	Label	Text	--	
9	Action	Button	N/A	--	Redirect to Equipment Details

13.3. Processing Logic

Step	Operation	Perform	Description
1	Initialize screen	KH	Customer choose "List" from Home screen
		AC	App Client initiates the My rental management screen - Submit an information query to CS to get the list
		CS	Receive information and process information: • Query and return a list of rented devices sorted by time from nearest to furthest Return test results to App Client.
		AC	Check the returned result: **- Not valid:** • Show notification for customer **- Valid:** Show list

14. Company Profile Management

- **Purpose:** Customers update company information on SCEM application.
- **Participating actor:** Customer, App Client, Core SCEM.
- **Pre-conditions:** Customer successfully login on SCEM application.
- **Desired results:** Customers can update company information to.

14.1.   Screen Flow

← **Company Profile Management**

Company name

Company email

Company phone number

Company owner

Technical Support Email

Technical support phone

Technical person name

Tax ID

Account type

Account type

| User ▾ |

Update

← **Company Profile Management**

Company name

| Lorem ipsum dolor sit amet |

Company email

| Lorem ipsum dolor sit amet |

Company phone number

| Lorem ipsum dolor sit amet |

Company owner

| Lorem ipsum dolor sit amet |

Technical Support Email

| Lorem ipsum dolor sit amet |

Technical support phone

| Lorem ipsum dolor sit amet |

Technical person name

| Lorem ipsum dolor sit amet |

Tax ID

| Lorem ipsum dolor sit amet |

Account type

| Lorem ipsum dolor sit amet |

Account type

| User ▾ |

Update

14.2. Screen Description

#	Category	Control Type	Datatype	Default Value	Description
1	Back	Icon	N/A	--	Back to Home screen
2	Ttitle	Label	Text	--	*"Company profile management"*
3	Company Name	TextBox	Text	--	
4	Company Email	TextBox	Text	--	
5	Company Phone Number	TextBox	Text	--	
6	Company Owner	TextBox	Text	--	
7	Technical Support Email	TextBox	Text	--	
8	Technical Support Phone	TextBox	Text	--	
9	Technical Person Name	TextBox	Text	--	
10	TaxID	TextBox	Text	--	
11	AccountType	DropDown	N/A	User	Get a list of Account Types and sort them alphabetically
12	Update	Button	N/A	--	

14.3. Processing Logic

Step	Operation	Perform	Description
1	Initialize screen	KH	Customer choose "Company" from Home Screen
		AC	App Client initializes the company information screen Submit information to CS to get company information
		CS	Query User's company information and return it to Client

		AC	Display information corresponding to the company information fields returned by CS
2	Customer click "Update"	AC	Enter information and press Update
		CS	Receive information and process information: **- If the company already exists in:** • Update information and return information to App Client **- If the company does not exist yet:** • Create new company and return information to App Client. ➢ Return test results to App Client.
		AC	Check the returned result: **- Not valid:** • Show notification for customer **- Valid:** Display announcements and company information after updating

15. User management

- **Purpose:** Customers manage company accounts.
- **Participating actor:** Customer, App Client, Core SCEM.
- **Pre-conditions:** Customer successfully login on SCEM application.
- **Desired results:** Customers manage company accounts, can decentralize and edit successfully on SCEM application.

15.1. Screen Flow

← **User management**

#	Name	Email	Active	
1	David	abcd@gmail.com	On	▶
2	Seteve	abcd2@gmail.com	On	▶
3	An	abcd3@gmail.com	On	▶
4	David	abcd@gmail.com	On	▶
5	Seteve	abcd2@gmail.com	On	▶
6	An	abcd3@gmail.com	On	▶
7	David	abcd@gmail.com	On	▶
8	Seteve	abcd2@gmail.com	On	▶
9	An	abcd3@gmail.com	On	▶
10	David	abcd@gmail.com	On	▶
11	Seteve	abcd2@gmail.com	On	▶
12	An	abcd3@gmail.com	On	▶
13	David	abcd@gmail.com	On	▶
14	Seteve	abcd2@gmail.com	On	▶
15	An	abcd3@gmail.com	On	▶
16	David	abcd@gmail.com	On	▶
17	Seteve	abcd2@gmail.com	On	▶
18	An	abcd3@gmail.com	On	▶
19	David	abcd@gmail.com	On	▶

Update

← **User management**

#	Name	Email	Active	
1	David	abcd@gmail.com	On	▶
2	Seteve	abcd2@gmail.com	On	▶
3	An	abcd3@gmail.com	On	▶
4	David	abcd@gmail.com	On	▶
5	Seteve	abcd2@gmail.com	On	▶
6	An	abcd3@gmail.com	On	▶
7	David	abcd@gmail.com	On	▶
8	Seteve	abcd2@gmail.com	On	▶
9	An	abcd3@gmail.com	On	▶
10	David	abcd@gmail.com	On	▶
11	Seteve	abcd2@gmail.com	On	▶
12	An	abcd3@gmail.com	On	▶
13	David	abcd@gmail.com	On	▶
14	Seteve	abcd2@gmail.com	On	▶
15	An	abcd3@gmail.com	On	▶
16	David	abcd@gmail.com	On	▶
17	Seteve	abcd2@gmail.com	On	▶

Edit

Permission

Cancel

15.2. Screen Description

#	Category	Control Type	Datatype	Default Value	Description
1	Back	Icon	N/A	--	Back to Home screen
2	Ttitle	Label	Text	--	*"User Management"*
3	Add	Icon	N/A	--	

Table					
1	Name	Label	Text	--	
2	Email	Label	Text	--	
3	Active	Label	Text	--	
4	Action	Icon	N/A	--	Click to display popup with value Edit, Permisstion, Cancel
Create Or Edit User					
1	Title	Label	Text	--	"Create User" Or "Edit User"
2	Name	TextBox	Text	--	
3	Email	TextBox	Text	--	
4	Department	TextBox	Text	--	
5	Phone Number	TextBox	Text	--	
6	User Group	CheckListBox	N/A	Checked	List of User Groups from Database
7	Update	Button	N/A	--	

15.3. Processing Logic

Step	Operation	Perform	Description
1	Initialize screen	KH	Customer choose "User Management" from Home screen
		AC	App Client initializes the user list screen Submit information to CS to get User list information
		CS	Query information List of Users sorted by last creation time and return to Client
		AC	Display the list according to the returned CS
2	Initialize screen Create Or Edit	KH	Customer choose icon "Add User" Or "Edit" from list user

		AC	App Client initiates the Create Or Edit screen Send information to CS to get user information if in Edit screen
		CS	Query user information according to the UserId of the transmitted AC
		AC	Display User information returned by CS
2	Customer click "Update"	AC	Enter information and press Update
		CS	Receive information and process information: **- If the email already exists:** • Return notice to AC "Account already exists, please register another account." **- If the email doesn't already exist:** • The system registers an account for Customer, and sends a successful registration email with password to Customer's email. • Return successful registration information to customer. ➢ Return test results to App Client.
		AC	Check the returned result: **- Not valid:** • Show notification for customer **- Valid:** Display success message and transfer customer to User Management screen.

16. User group

- **Purpose:** Customers manage the company's user groups.
- **Participating actor:** Customer, App Client, Core SCEM.
- **Pre-conditions:** Customer successfully login on SCEM application.
- **Desired results:** Customers can easily manage the users of the company they own.

16.1. Screen Flow

#	Name	Email	Active	
1	David	abcd@gmail.com	On	▶
2	Seteve	abcd2@gmail.com	On	▶
3	An	abcd3@gmail.com	On	▶
4	David	abcd@gmail.com	On	▶
5	Seteve	abcd2@gmail.com	On	▶
6	An	abcd3@gmail.com	On	▶
7	David	abcd@gmail.com	On	▶
8	Seteve	abcd2@gmail.com	On	▶
9	An	abcd3@gmail.com	On	▶
10	David	abcd@gmail.com	On	▶
11	Seteve	abcd2@gmail.com	On	▶
12	An	abcd3@gmail.com	On	▶
13	David	abcd@gmail.com	On	▶
14	Seteve	abcd2@gmail.com	On	▶
15	An	abcd3@gmail.com	On	▶
16	David	abcd@gmail.com	On	▶
17	Seteve	abcd2@gmail.com	On	▶
18	An	abcd3@gmail.com	On	▶
19	David	abcd@gmail.com	On	▶

Update

← User management

#	Name	Email	Active	
1	David	abcd@gmail.com	On	▶
2	Seteve	abcd2@gmail.com	On	▶
3	An	abcd3@gmail.com	On	▶
4	David	abcd@gmail.com	On	▶
5	Seteve	abcd2@gmail.com	On	▶
6	An	abcd3@gmail.com	On	▶
7	David	abcd@gmail.com	On	▶
8	Seteve	abcd2@gmail.com	On	▶
9	An	abcd3@gmail.com	On	▶
10	David	abcd@gmail.com	On	▶
11	Seteve	abcd2@gmail.com	On	▶
12	An	abcd3@gmail.com	On	▶
13	David	abcd@gmail.com	On	▶
14	Seteve	abcd2@gmail.com	On	▶
15	An	abcd3@gmail.com	On	▶
16	David	abcd@gmail.com	On	▶
17	Seteve	abcd2@gmail.com	On	▶

Edit

Permission

Cancel

16.2.   Screen Description

#	Category	Control Type	Datatype	Default Value	Description
1	Back	Icon	N/A	--	Back to Home screen
2	Ttitle	Label	Text	--	*"User Group"*
3	Add	Icon	N/A	--	Add new User Group

Table					
5	Name	Label	Text	--	
6	Active	Label	Text	--	
7	Action	Icon	N/A	--	Click to display popup with value Edit, Permisstion, Cancel
Create Or Edit					
1	Back	Icon	N/A	--	Back to user group
2	Title	Label	N/A	--	"Create User Group" Or "Edit User Group"
3	User Group Name	TextBox	Text	--	
	User Group Permisstion	CheckListBox	N/A	--	Permission list is configured in Database
User In Group					
1	Email	TextBox	Text	--	
2	Add	Button	N/A	--	Add User to Table
Table					
1	Name	Label	Text	--	
2	Email	Label	Text	--	
3	Delete	Icon	N/A	--	Delete row of table

16.3. Processing Logic

Step	Operation	Perform	Description
1	Initialize screen	KH	Customer choose "User group" from Home Screen
		AC	App Client initializes the User Group list screen Submit information to CS to get listing information
		CS	Query company information, list of User Groups sorted alphabetically
		AC	Show list for CS to return

2	Initialize screen Create Or Edit	KH	Customer choose Create Or Edit from List User Group
		AC	App Client initiates the Create Or Edit screen Submit information to CS to get GroupId information if in Edit mode
		CS	Query information by GroupId and then return information to AppClient
		AC	Display User Group information
3	Customer click "Update"	AC	Enter information and press Update
		CS	Receive information and process information: **- If the group name already exists:** • Return notice to AC "The group name already exists. Please update your information." **- Valid:** • Create user group. • Assign selected permissions by Group. • Assign selected Users to group ➤ Return test results to App Client.
		AC	Check the returned result: **- Not valid:** • Show notification for customer **- Valid:** Display success message and transfer customer to User Group screen.

17. Location Groups

- **Purpose:** Customers can manage Location Groups on SCEM application.
- **Participating actor:** Customer, App Client, Core SCEM.
- **Pre-conditions:** Customer successfully login on SCEM application.
- **Desired results:** Customers easily manage Location Group on SCEM application.

17.1.   Screen Flow

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Application Version: 1.0.0

17.2. Screen Description

#	Category	Control Type	Datatype	Default Value	Description
1	Back	Icon	N/A	--	Back to Home screen
2	Ttitle	Label	Text	--	*"Location Groups"*
3	Add	Icon	Text	--	Redirect to Create Location Group

Table					
5	Name	Label	Text	--	
6	Description	Label	Text	--	
7	Action	Icon	N/A	--	Click to display popup with value Edit, Delete, Cancel
Create Or Edit					
1	Back	Icon	N/A	--	Back to List Location Group
2	Title	Label	Text	--	"Create Location" Or "Edit Location"
4	Name	TextBox	Text	--	
5	Description	TextBox	Text	--	
6	Update	Button	N/A	--	

17.3. Processing Logic

Step	Operation	Perform	Description
1	Initialize screen	KH	Customer choose "Location Group" from Home Screen
		AC	App Client initializes the list scree Submit information to CS to get listing information
		CS	Query company information alphabetical list
		AC	Show list for CS to return
2	Initialize screen Create Or Edit	KH	Customer choose Create Or Edit from List Location Group
		AC	App Client initiates the Create Or Edit screen ➢ App Client initiates the Create Or Edit screen
		CS	Query information by LocationGroupId and then return information to AppClient
		AC	Show Location Group information

3	Customer click "Update"	AC	Enter information and press Update
		CS	Receive information and process information: • Record Location Group information into DB Return test results to App Client.
		AC	Check the returned result: **- Not valid:** • Show notification for customer **- Valid:** Display success message and transfer customer to Location Group screen.

18. Company Locations

- **Purpose:** Customers manage Location information on SCEM application.
- **Participating actor:** Customer, App Client, Core SCEM.
- **Pre-conditions:** Customer successfully login on SCEM application.
- **Desired results:** Customers easily manage Location information on SCEM application.

18.1. Screen Flow

← Company Locations ⊕

#	Name	Address	
1	David	NY	▶
2	David	NY	▶
3	David	NY	▶
4	David	NY	▶
5	David	NY	▶
6	David	NY	▶
7	David	NY	▶
8	David	NY	▶
9	David	NY	▶
10	David	NY	▶
11	David	NY	▶
12	David	NY	▶
13	David	NY	▶
14	David	NY	▶
15	David	NY	▶
16	David	NY	▶
17	David	NY	▶
18	David	NY	▶
19	David	NY	▶

18.2. Screen Description

#	Category	Control Type	Datatype	Default Value	Description
1	Back	Icon	N/A	--	Back to Home screen
2	Ttitle	Label	Text	--	*"Company Locations"*
3	Add	Icon	Text	--	Redirect to Create Company Location

Table					
5	Name	Label	Text	--	
6	Address	Label	Text	--	
7	Action	Icon	N/A	--	Click to display popup with value Edit, Delete, Cancel
Create Or Edit					
1	Back	Icon	N/A	--	Back to List Company Location
2	Title	Label	Text	--	"Create Location" Or "Edit Location"
3	Account Type	DropDown List	N/A	--	List taken from Account Types
4	Name	TextBox	Text	--	
5	Address	TextBox	Text	--	
6	Phone Number	TextBox	Text	--	
7	Map	Map	N/A	--	Get Range location choose
8	Location Group	DropDown List	N/A	--	Get list from Location Groups
9	Update	Button	N/A	--	

18.3. Processing Logic

Step	Operation	Perform	Description
1	Initialize screen	KH	Customer choose "Company Locations" from Home Screen
		AC	App Client initializes the list screen Submit information to CS to get listing information
		CS	Query company information alphabetical list
		AC	Show list for CS to return
2	Initialize screen Create Or Edit	KH	Customer choose Create Or Edit from List Company Location

		AC	App Client initiates the Create Or Edit screen ➢ Send information to CS to get LocationId information if in Edit mode
		CS	Query information by LocationId and return information to AppClient
		AC	Show Location information
3	Customer click "Update"	AC	Enter information and press Update
		CS	Receive information and process information: • Record Location information into DB Return test results to App Client.
		AC	Check the returned result: **- Not valid:** • Show notification for customer **- Valid:** Display success message and transfer customer to Company Locations screen.

19. Equipment Groups

- **Purpose:** Customers manage Equipment Group using SCEM application.
- **Participating actor:** Customer, App Client, Core SCEM.
- **Pre-conditions:** Customer successfully login on SCEM application.
- **Desired results:** Customers can easily manage Equipment Groups on SCEM application.

19.1.   Screen Flow

← Equipment Groups ⊕

#	Name	Description	
1	Group 1		▶
2	Group 2		▶
3	Group 3		▶
4	Group 4		▶
5	Group5		▶
6	Group 6		▶
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			

← Equipment Groups ⊕

#	Name	Description	
1	Group 1		▶
2	Group 2		▶
3	Group 3		▶
4	Group 4		▶
5	Group5		▶
6	Group 6		▶
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			

Edit

Delete

Cancel

19.2.   Screen Description

#	Category	Control Type	Datatype	Default Value	Description
1	Back	Icon	N/A	--	Back to Home screen
2	Ttitle	Label	Text	--	*"Equipment Groups"*
3	Add	Icon	Text	--	Redirect to Create Location Group

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Table					
5	Name	Label	Text	--	
6	Description	Label	Text	--	
7	Action	Icon	N/A	--	Click to display popup with value Edit, Delete, Cancel
Create Or Edit					
1	Back	Icon	N/A	--	Back to List Equipment Group
2	Title	Label	Text	--	"Create Equipment Group" Or "Edit Equipment Group"
4	Name	TextBox	Text	--	
5	Description	TextBox	Text	--	
6	Update	Button	N/A	--	

19.3. Processing Logic

Step	Operation	Perform	Description
1	Initialize screen	KH	Customer choose "Equipment Group" from Home Screen
		AC	App Client initializes the list screen Submit information to CS to get listing information
		CS	Query company information alphabetical list
		AC	Show list for CS to return
2	Initialize screen Create Or Edit	KH	Customer choose Create Or Edit from List Equipment Group
		AC	App Client initiates the Create Or Edit screen ➢ Send information to CS to get EquipmentGroupId information if in Edit mode
		CS	Query information by EquipmentGroupId and return information to AppClient
		AC	Equipment Group information display

3	Customer click "Update"	AC	Enter information and press Update
		CS	Receive information and process information: • Record Equipment Group information into DB Return test results to App Client.
		AC	Check the returned result: **- Not valid:** • Show notification for customer **- Valid:** Display success message and transfer customer to Equipment Group screen.

20. Equipment Types

- **Purpose:** Customers manage Equipment Type using SCEM application.
- **Participating actor:** Customer, App Client, Core SCEM.
- **Pre-conditions:** Customer successfully login on SCEM application.
- **Desired results:** Customers can easily manage Equipment Type with SCEM application.

20.1. Screen Flow

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← **Equipment Types** ⊕

#	Name	Description	
1	Group 1		▶
2	Group 2		▶
3	Group 3		▶
4	Group 4		▶
5	Group5		▶
6	Group 6		▶
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			

← **Equipment Types** ⊕

#	Name	Description	
1	Group 1		▶
2	Group 2		▶
3	Group 3		▶
4	Group 4		▶
5	Group5		▶
6	Group 6		▶
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			

Edit

Delete

Cancel

20.2. Screen Description

#	Category	Control Type	Datatype	Default Value	Description
1	Back	Icon	N/A	--	Back to Home screen
2	Ttitle	Label	Text	--	*"Equipment Types"*
3	Add	Icon	Text	--	Redirect to Create Location Type

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Table					
5	Name	Label	Text	--	
6	Description	Label	Text	--	
7	Action	Icon	N/A	--	Click to display popup with value Edit, Delete, Cancel
Create Or Edit					
1	Back	Icon	N/A	--	Back to List Equipment Type
2	Title	Label	Text	--	"Create Equipment Type" Or "Edit Equipment Type"
4	Name	TextBox	Text	--	
5	Description	TextBox	Text	--	
6	Update	Button	N/A	--	

20.3. Processing Logic

Step	Operation	Perform	Description
1	Initialize screen	KH	Customer choose "Equipment Type" from Home Screen
		AC	App Client initializes the list screen Submit information to CS to get listing information
		CS	Query company information alphabetical list
		AC	Show list for CS to return
2	Initialize screen Create Or Edit	KH	Customer choose Create Or Edit from List Equipment Type
		AC	App Client initiates the Create Or Edit screen ➢ Send information to CS to get EquipmentTypeId information if in Edit mode
		CS	Query information by EquipmentTypeId and return information to AppClient
		AC	Equipment Type information display

3	Customer click "Update"	AC	Enter information and press Update
		CS	<u>Receive information and process information:</u> • Record Equipment Type information into DB Return test results to App Client.
		AC	<u>Check the returned result:</u> **- Not valid:** • Show notification for customer **- Valid:** Display success message and transfer customer to Equipment Type screen.

21. Equipment Management

- **Purpose:** Customers manage equipment on SCEM application.
- **Participating actor:** Customer, App Client, Core SCEM.
- **Pre-conditions:** Customer successfully login on SCEM application.
- **Desired results:** Customers can easily manage on SCEM application.

21.1.   Screen Flow

Equipment Management

#	Name	Description	
1	GPS 1	AH189	▶
2	GPS 2	AH190	▶
3	GPS 3	AH191	▶
4	GPS 4	AH192	▶
5	GPS 5	AH193	▶
6	GPS 6	AH194	▶
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			

Equipment Management

#	Name	Description	
1	GPS 1	AH189	▶
2	GPS 2	AH190	▶
3	GPS 3	AH191	▶
4	GPS 4	AH192	▶
5	GPS 5	AH193	▶
6	GPS 6	AH194	▶
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			

Edit

Preview

Cancel

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← **Claim owbership by IMEI**

IMEI

A1234   **Check**

Secret code

Equipment name

Equipment Model

Manufacturer

Race Result   ▼

Chassis number

Plate number

Plate date

                                   📅

Purchase price

Equipment type

Bulldozer   ▼

Weight

Capacity

Equipment Group

Group A   ▼

21.2. Screen Description

#	Category	Control Type	Datatype	Default Value	Description
1	Back	Icon	N/A	--	Back to Home screen
2	Ttitle	Label	Text	--	*"Equipment Management"*
3	Add	Icon	Text	--	Redirect to Create Equipment
Table					
5	Name	Label	Text	--	
6	Description	Label	Text	--	
7	Action	Icon	N/A	--	Click to display popup with value Edit, Delete, Cancel
Create Or Edit					
1	Back	Icon	N/A	--	Back to List Equipment Management
2	Title	Label	Text	--	"Create Equipment" Or "Edit Equipment"
3	Name	TextBox	Text	--	
4	Model	TextBox	Text	--	
5	IMEI	TextBox	Text	--	Disable when Edit
5	Check IMEI	Button	N/A	--	Check IMEI Hide when Edit
6	Secret code	TextBox	Text	--	
7	Manufacture	DropDown List	N/A	--	Get the list configured on BE
8	Chassis number	TextBox	Text	--	
9	Plate number	TextBox	Text	--	
10	Purchase date	Date	Date	--	
11	Purchase price	TextBox	Text	--	

12	Equipment Type	DropDown List	N/A	--	Get the configured list
13	Weight	TextBox	Text	--	
14	Capacity	TextBox	Text	--	
15	Equipment Group	DropDown List	N/A	--	Get the configured list
16	Update	Button	N/A	--	

21.3. Processing Logic

Step	Operation	Perform	Description
1	Initialize screen	KH	Customer choose "Equipment Management" from Home Screen
		AC	App Client initializes the list screen Submit information to CS to get listing information
		CS	Query company information alphabetical list
		AC	Show list for CS to return
2	Initialize screen Create Or Edit	KH	Customer choose Create Or Edit from List Equipment Management
		AC	App Client initiates the Create Or Edit screen ➢ Send information to CS to get EquipmentId information if in Edit mode
		CS	Query information by EquipmentId and return information to AppClient
		AC	Equipment information display
3	Customer click "Update"	AC	Enter information and press Update
		CS	Receive information and process information: **- If IMEI already exists:**

			• Return notice to AC "IMEI already exists. Please choose another IMEI" **- Valid:** • Insert more IMEI information into the equipment of customer. Return test results to App Client.
		AC	Check the returned result: **- Not valid:** • Show notification for customer **- Valid:** Display success message and transfer customer to Equipment Management screen.
4	Customer click "Check"	AC	Send IMEI information to CS to check
		CS	Receive information and process information: **- If IMEI already exists:** • Return information to client with queryable IMEI information **- If IMEI does not exist:** • Return notice to Client "IMEI does not exist, you can create a new one from this IMEI". Return test results to App Client.
		AC	Check the returned result: **- If IMEI already exists:** • Fill information according to CS returned **- If IMEI does not exist:** • Show notification for customers to know

22. View Equipment List

- **Purpose:** Customers monitor Equipment in List form on SCEM application.
- **Participating actor:** Customer, App Client, Core SCEM.
- **Pre-conditions:** Customer successfully login on SCEM application.

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- **Desired results:** Customers can easily search and track Equipment on SCEM application.

22.1. Screen Flow

22.2. Screen Description

#	Category	Control Type	Datatype	Default Value	Description

1	Back	Icon	N/A	--	Back to Home screen
2	Ttitle	Label	Text	--	*"View Equipment List"*
3	Equipment Type	DropDown List	N/A	--	Get the configured list
4	IMEI	TextBox	Text	--	
5	Site	DropDown List	Text	--	Get the configured list
6	View	Button	N/A	--	
Table					
1	Site	Icon	N/A	--	
2	Lat	Label	Text	--	
3	Lon	Label	Text	--	
4	Date	Label	Datetime	--	

22.3. Processing Logic

Step	Operation	Perform	Description
1	Initialize screen	KH	Customer choose "Equipment View List" from Home Screen
		AC	App Client initializes the View screen Submit information to CS to get information - List Equipment Type - List Site
		CS	Query company information alphabetical list
		AC	Show list for CS to return
2	Customer click "View"	AC	Enter information and press View
		CS	Receive information and process information:

			Query information according to submission criteria and return information to AppClient
		AC	Display information according to CS returned

23. View Equipment Map

- **Purpose:** Customers track equipment in Map form on SCEM application.
- **Participating actor:** Customer, App Client, Core SCEM.
- **Pre-conditions:** Customer successfully login on SCEM application.
- **Desired results:** Customers can easily search and track equipment on the SCEM application.

23.1. Screen Flow

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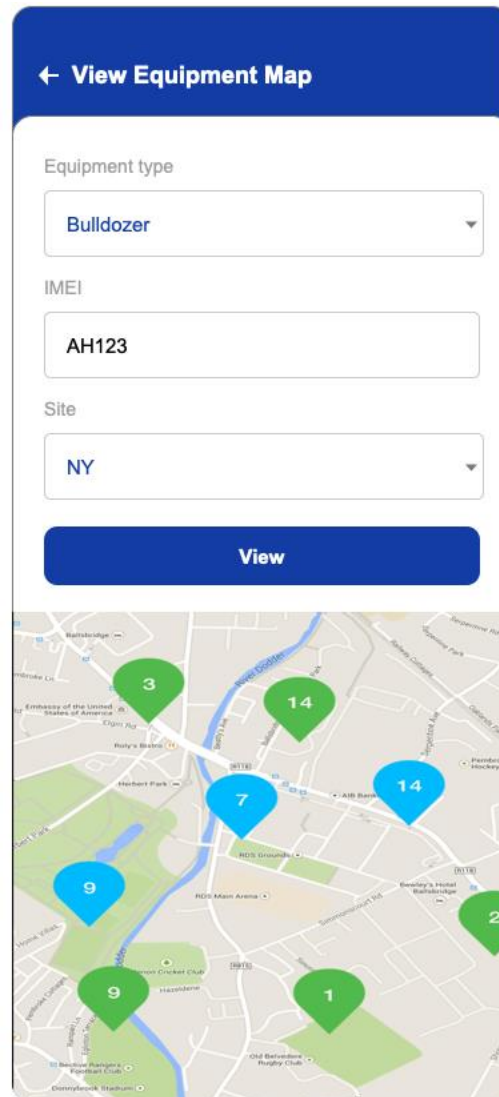
23.2. Screen Description

#	Category	Control Type	Datatype	Default Value	Description
1	Back	Icon	N/A	--	Back to Home screen
2	Ttitle	Label	Text	--	"View Equipment Map"
3	Equipment Type	DropDown List	N/A	--	Get the configured list

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4	IMEI	TextBox	Text	--	
5	Site	DropDown List	Text	--	Get the configured list
6	View	Button	N/A	--	
7	Map	Map	N/A	--	

23.3. Processing Logic

Step	Operation	Perform	Description
1	Initialize screen	KH	Customer choose "Equipment View Map" from Home Screen
		AC	App Client initializes the View screen Submit information to CS to get information - List Equipment Type - List Site
		CS	Query company information alphabetical list
		AC	Show list for CS to return
2	Customer click "View"	AC	Enter information and press View
		CS	Receive information and process information: Query information according to submission criteria and return information to AppClient
		AC	Use the returned CS data to display on the map

24. Tool – Alerts

- **Purpose:** Customer creates alarm for Equipment on SCEM application.
- **Participating actor:** Customer, App Client, Core SCEM.
- **Pre-conditions:** Customer successfully login on SCEM application.
- **Desired results:** Customers can easily manage and edit Alerts on SCEM applications.

24.1.   Screen Flow

24.2.   Screen Description

#	Category	Control Type	Datatype	Default Value	Description
1	Back	Icon	N/A	--	Back to Home screen

2	Ttitle	Label	Text	--	*"Alerts"*
3	Add	Icon	Text	--	Redirect to Create Alert
Table					
5	Name	Label	Text	--	
6	Description	Label	Text	--	
7	Active	Label	Textt	--	
8	Action	Icon	N/A	--	Click to display popup with value Edit, Delete, Cancel
Create Or Edit					
1	Back	Icon	N/A	--	Back to List Alerts
2	Title	Label	Text	--	"Create Alert" Or "Edit Alert"
3	Equipment	DropDown List	Text	--	Get list from config
4	Name	TextBox	Text	--	
5	On/OFF	Swich	Text	--	
5	Description	TextBox	Text	--	
6	Update	Button	N/A	--	

24.3. Processing Logic

Step	Operation	Perform	Description
1	Initialize screen	KH	Customer choose "Tool – Alert" from Home Screen
		AC	App Client initializes the list screen Submit information to CS to get listing information
		CS	Query company information, list sorted by alphabet
		AC	Show list for CS to return
2	Initialize screen Create Or Edit	KH	Customer choose Create Or Edit from List Alerts

		AC	App Client initiates the Create Or Edit screen ➢ Send information to CS to get AlertId information if in Edit mode
		CS	Query information by AlertId and return information to AppClient
		AC	Display Alert information
3	Customer click "Update"	AC	Enter information and press Update
		CS	Receive information and process information: **- If not valid:** • Return notice to AC "An error occurred, please try again" **- Valid:** • Insert more Alert information into Database. Return test results to App Client.
		AC	Check the returned result: **- Not valid:** • Show notification for customer **- Valid:** Display success message and transfer customer to Alerts screen.

25. Tool – Upcoming maintenance schedule

- **Purpose:** Customers use to schedule maintenance for equipment on SCEM application.
- **Participating actor:** Customer, App Client, Core SCEM.
- **Pre-conditions:** Customer successfully login on SCEM application.
- **Desired results:** Customers can easily manage and schedule maintenance and repair for their equipment on the SCEM application.

25.1. Screen Flow

25.2. Screen Description

#	Category	Control Type	Datatype	Default Value	Description
1	Back	Icon	N/A	--	Back to Home screen
2	Ttitle	Label	Text	--	"Upcoming maintenance schedule"
3	Add	Icon	Text	--	Redirect to Create maintenance schedule

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Table					
5	Name	Label	Text	--	
6	Equipment	Label	Text	--	
7	FromDate	Label	Date	--	
8	ToDate	Label	Date		
9	Action	Icon	N/A	--	Click to display popup with value Edit, Delete, Cancel
Create Or Edit					
1	Back	Icon	N/A	--	Back to List Upcoming maintenance schedule
2	Title	Label	Text	--	"Create maintenance schedule" Or "Edit maintenance schedule"
3	Equipment	DropDown List	Text	--	Get list from config
4	Name	TextBox	Text	--	
5	Description	TextBox	Text	--	
5	FromDate	TextBox	Date	--	
6	ToDate	TextBox	Date	--	
7	Update	Button	N/A	--	

25.3. Processing Logic

Step	Operation	Perform	Description
1	Initialize screen	KH	Customer choose "Tool – Upcoming maintenance schedule" from Home Screen
		AC	App Client initializes the list screen Submit information to CS to get listing information
		CS	Query company information list sorted by creation time nearest to farthest

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		AC	Show list for CS to return
2	Initialize screen Create Or Edit	KH	Customer choose Create Or Edit from List Upcoming maintenance schedule
		AC	App Client initiates the Create Or Edit screen ➢ Send information to CS to get ScheduleId information if in Edit mode
		CS	Query information by ScheduleId and return information to AppClient
		AC	Display maintenance schedule information
3	Customer click "Update"	AC	Enter information and press Update
		CS	Receive information and process information: **- If not valid:** • Return notice to AC "An error occurred, please try again" **- Valid:** • Insert more information into Database. Return test results to App Client.
		AC	Check the returned result: **- Not valid:** • Show notification for customer **- Valid:** Display success message and transfer customer to Upcoming maintenance schedule screen.

26. Tool – Scheduling

- **Purpose:** Customers create device schedules on SCEM application.
- **Participating actor:** Customer, App Client, Core SCEM.
- **Pre-conditions:** Customer successfully login on SCEM application.
- **Desired results:** Customers can easily manage the calendar for the device on the SCEM application.

26.1. Screen Flow

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26.2. Screen Description

#	Category	Control Type	Datatype	Default Value	Description
1	Back	Icon	N/A	--	Back to Home screen
2	Ttitle	Label	Text	--	*"Scheduling"*
3	Add	Icon	Text	--	Redirect to Create Scheduling

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Table					
5	Name	Label	Text	--	
6	Equipment	Label	Text	--	
7	FromDate	Label	Date	--	
8	ToDate	Label	Date		
9	Action	Icon	N/A	--	Click to display popup with value Edit, Delete, Cancel
Create Or Edit					
1	Back	Icon	N/A	--	Back to List Scheduling
2	Title	Label	Text	--	"Create Scheduling" Or "Edit Scheduling"
3	Equipment	DropDown List	Text	--	Get list from config
4	Name	TextBox	Text	--	
5	Description	TextBox	Text	--	
5	FromDate	TextBox	Date	--	
6	ToDate	TextBox	Date	--	
7	Update	Button	N/A	--	

26.3. Processing Logic

Step	Operation	Perform	Description
1	Initialize screen	KH	Customer choose "Tool – Scheduling" from Home Screen
		AC	App Client initializes the list screen Submit information to CS to get listing information
		CS	Query company information list sorted by creation time nearest to farthest
		AC	Show list for CS to return

2	Initialize screen Create Or Edit	KH	Customer choose Create Or Edit from List Scheduling
		AC	App Client initiates the Create Or Edit screen ➢ Send information to CS to get ScheduleId information if in Edit mode
		CS	Query information by ScheduleId and return information to AppClient
		AC	Display Scheduling information
3	Customer click "Update"	AC	Enter information and press Update
		CS	Receive information and process information: **- If not valid:** • Return notice to AC "An error occurred, please try again" **- Valid:** • Insert more information into Database. Return test results to App Client.
		AC	Check the returned result: **- Not valid:** • Show notification for customer **- Valid:** Display success message and transfer customer to Scheduling screen.

27. Tool – Equipment Count

- **Purpose:** Customers can count devices on SCEM app.
- **Participating actor:** Customer, App Client, Core SCEM.
- **Pre-conditions:** Customer successfully login on SCEM application.
- **Desired results:** Customers can easily manage the total number of devices in use by Type and Site.

27.1. Screen Flow

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27.2. Screen Description

#	Category	Control Type	Datatype	Default Value	Description
1	Back	Icon	N/A	--	Back to Home screen
2	Ttitle	Label	Text	--	*"Equipment Count"*
3	Equipment Type	DropDown List	N/A	--	Get the configured list

5	Site	DropDown List	Text	--	Get the configured list
6	Count	Label	Text	--	Displayed after pressing Count
7	Count	Button	N/A	--	
Table					
1	Name	Label	Text	--	
2	Equipment Type	Label	Text	--	
3	Equipment	Label	Text	--	
4	Site	Label	Text	--	

27.3. Processing Logic

Step	Operation	Perform	Description
1	Initialize screen	KH	Customer choose "Equipment Count" from Home Screen
		AC	App Client initializes the Equipment Count screen Submit information to CS to get information - List Equipment Type - List Site
		CS	Query company information alphabetical list
		AC	Show list for CS to return
2	Customer click "Count"	AC	Enter information and press Count
		CS	Receive information and process information: Query information according to submission criteria and return information to AppClient
		AC	Display information according to CS returned

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28. Site and Tracking link

- **Purpose:** Customer Creates Website and Tracks on SCEM Application.
- **Participating actor:** Customer, App Client, Core SCEM.
- **Pre-conditions:** Customer successfully login on SCEM application.
- **Desired results:** Customers easily create Site and Tracking on SCEM application.

28.1. Screen Flow

28.2. Screen Description

#	Category	Control Type	Datatype	Default Value	Description
1	Back	Icon	N/A	--	Back to Home screen
2	Ttitle	Label	Text	--	*"Site and Tracking link"*
3	Add	Icon	Text	--	Redirect to Create Site and Tracking link

Table					
5	Equipment	Label	Text	--	
6	Site	Label	Text	--	
7	Tracker	Label	Date	--	
8	Action	Icon	N/A	--	Click to display popup with value Edit, Delete, Cancel
Create Or Edit					
1	Back	Icon	N/A	--	Back to List Site and Tracking link
2	Title	Label	Text	--	"Create Site and Tracking link" Or "Edit Site and Tracking link"
3	Equipment	DropDown List	Text	--	Get list from config
4	Site	DropDown List	Text	--	Get list from config
5	Tracker	DropDown List	Text	--	Get list from config
7	Update	Button	N/A	--	

28.3. Processing Logic

Step	Operation	Perform	Description
1	Initialize screen	KH	Customer choose "Site and Tracking link" from Home Screen
		AC	App Client initializes the list screen Submit information to CS to get listing information
		CS	Query company information list sorted by creation time nearest to farthest
		AC	Show list for CS to return
2	Initialize screen Create Or Edit	KH	Customer choose Create Or Edit from List Site and Tracking link

		AC	App Client initiates the Create Or Edit screen
			➤ Send information to CS to get Id information if in Edit mode
		CS	Query information by Id and then return information to AppClient
		AC	Display Site information and Tracking link
3	Customer click "Update"	AC	Enter information and press Update
		CS	Receive information and process information: **- If already existed:** • Check that Equipment, Site, Tracker already exist, then Return notice to AC "Tracking data already exists, please choose another information" **- Valid:** • Insert more information into Database. Return test results to App Client.
		AC	Check the returned result: **- Not valid:** • Show notification for customer **- Valid:** Display success message and transfer customer to Site and Tracking link screen.

29. Report

- **Purpose:** Customers view reports on SCEM application.
- **Participating actor:** Customer, App Client, Core SCEM.
- **Pre-conditions:** Customer successfully login on SCEM application.
- **Desired results:** Customers can easily monitor reports on SCEM application.

29.1.   Screen Flow

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29.2. Screen Description

#	Category	Control Type	Datatype	Default Value	Description
1	Back	Icon	N/A	--	Back to Home screen
2	Ttitle	Label	Text	--	*"Report"*
3	List	DropDown List	N/A	--	- AI Suggestions - EquipmentList

				- Equipment Utilization Report
				- Location List
				- Tracker List
				- Sensor List
6	Chart	Chart	N/A	--
Table Data: Display by type of report				

29.3. Processing Logic

Step	Operation	Perform	Description
1	Initialize screen	KH	Customer choose "Report" from Home Screen
		AC	Submit information to CS to get information according to DropDownList, default is AI suggetstion
		CS	Query list information sorted by creation time nearest to farthest
		AC	Show list for CS to return Display Chart according to the returned data
2	Change DropDownList	KH	Customer choose DropDownList
		AC	Submit information to CS to get information according to DropDownList
		CS	Query list information sorted by creation time nearest to farthest
		AC	Show list for CS to return Display Chart according to the returned data

30. User

- **Purpose:** Customers view manageable information on the SCEM application.
- **Participating actor:** Customer, App Client, Core SCEM.
- **Pre-conditions:** Customer successfully login on SCEM application.

- **Desired results:** Customers can easily find manageable items on the SCEM application.

30.1.   Screen Flow
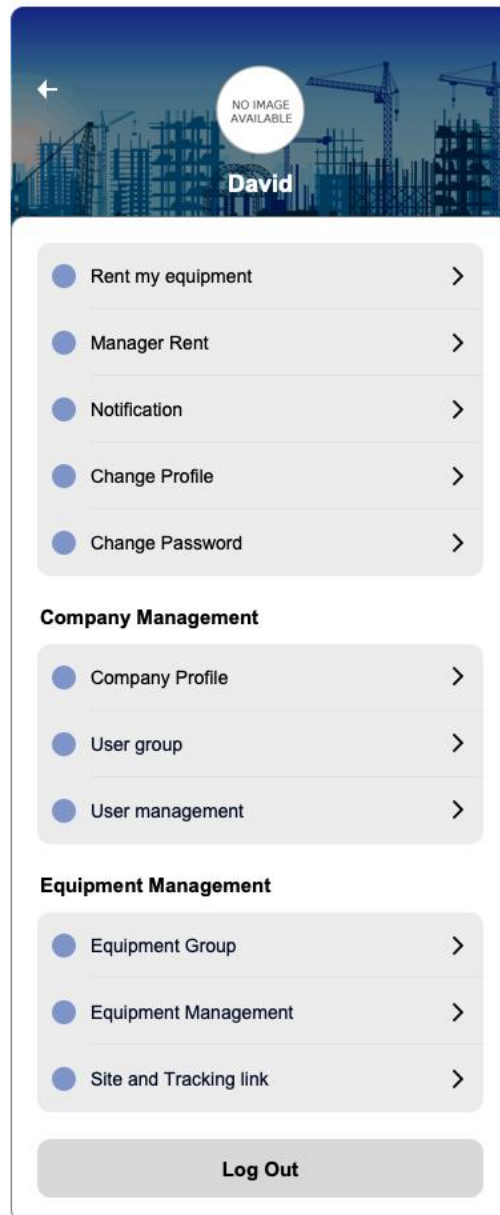
30.2. Screen Description

#	Category	Control Type	Datatype	Default Value	Description
1	Back	Icon	N/A	--	Back to Home Screen
2	Avatar	Picture	N/A	--	
3	FullName	Label	N/A	--	
4	Rent my equipment	Link	N/A	--	Redirect to "Rent my equipment"
5	Equipment for rent	Link	N/A	--	Redirect to "Equipment for rent"
6	Notification	Link	N/A	--	Redirect to "Notification"
7	Change Profile	Link	N/A	--	Redirect to "Change Profile"
8	Change Password	Link	N/A	--	Redirect to "Change Password"
9	Company Profile	Link	N/A	--	Redirect to "Company Profile"
10	User Group	Link	N/A	--	Redirect to "User Group"
11	User Managerment	Link	N/A	--	Redirect to "User Managerment"
12	Equipment Group	Link	N/A	--	Redirect to "Equipment Group"
13	Equipment Managerment	Link	N/A	--	Redirect to "Equipment Managerment"
14	Site And Tracking Link	Link	N/A	--	Redirect to "Site And Tracking Link"
15	Logout	Icon	N/A	--	Remove Session and redirect to Home Screen

30.3. Processing Logic

Step	Operation	Perform	Description
1	Initialize screen	KH	
		AC	App Client initializes the User screen **- If token exists:** • Get cached Avatar and FullName information to display.

			- If the token does not exist:
			• Return to the login screen.

31. User – Change Profile

- **Purpose:** Customers change personal information on SCEM application.
- **Participating actor:** Customer, App Client, Core SCEM.
- **Pre-conditions:** Customer successfully login on SCEM application.
- **Desired results:** Customers can easily edit personal information on SCEM application.
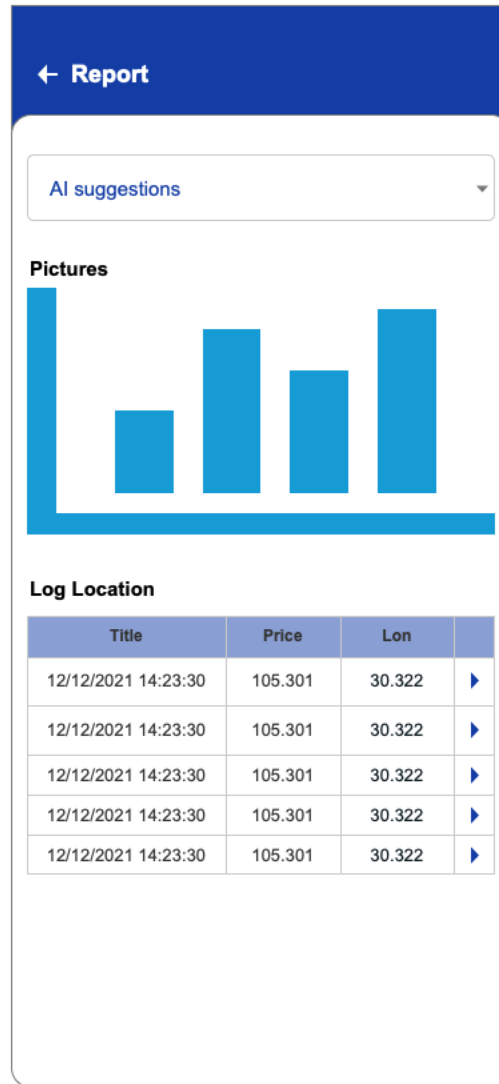
31.1.   Screen Flow

31.2. Screen Description

#	Category	Control Type	Datatype	Default Value	Description
1	Back	Icon	N/A	--	Back to User screen
2	Ttitle	Label	Text	--	*"Change Profile"*
3	Email	TextBox	Text	--	Disable

4	FullName	TextBox	Text	--	
5	Gender	DropDown List	N/A	--	- Male - Female
6	BirthDay	Date	Date	--	
7	Address	TextBox	Text	--	
8	Avatar	Picture	N/A	--	
9	Update	Button	N/A	--	

31.3. Processing Logic

Step	Operation	Perform	Description
1	Initialize screen	KH	Customer choose "Change Profile" from User Screen
		AC	App Client initializes the information screen Submit information to CS to get User information
		CS	Query User information and return it to Client
		AC	Display information corresponding to the information fields returned by CS
2	Customer click "Update"	AC	Enter information and press Update
		CS	Receive information and process information: **- Update user information** ➢ Return test results to App Client.
		AC	Check the returned result: **- Not valid:** • Show notification for customer **- Valid:** Display the message and return to the User screen

32. User – Change Password

- **Purpose:** Customer changes password on SCEM application.
- **Participating actor:** Customer, App Client, Core SCEM.
- **Pre-conditions:** Customer successfully login on SCEM application.
- **Desired results:** Customers can easily change their password successfully on SCEM application.

32.1. Screen Flow

32.2. Screen Description

#	Category	Control Type	Datatype	Default Value	Description
1	Back	Icon	N/A	--	Back to User screen
2	Ttitle	Label	Text	--	*"Change Password"*
3	Old Password	TextBox	Text	--	
4	New Password	TextBox	Text	--	Passwords from 8-20 characters
5	Confirm New Password	TextBox	N/A	--	Passwords from 8-20 characters Must be the same as New Password The new password must not be the same as the old password
6	Update	Button	N/A	--	

32.3. Processing Logic

Step	Operation	Perform	Description
1	Initialize screen	KH	Customer choose "Change Password" from User Screen
		AC	App Client initializes the information screen
2	Customer click "Update"	AC	Enter information and press Update
		CS	Receive information and process information: **- If the old password is incorrect:** • Return notice to AC "The old password is incorrect, please check again." **- Valid:** • Update password for User. ➢ Return test results to App Client.
		AC	Check the returned result: **- Not valid:**

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			• Show notification for customer
			- Valid: Display the message and return to the User screen

33. User - Notification

- **Purpose:** Customers can view notifications on SCEM application.
- **Participating actor:** Customer, App Client, Core SCEM.
- **Pre-conditions:** Customer successfully login on SCEM application.
- **Desired results:** Customers can easily view the notifications that have been announced for their accounts on the SCEM application.

33.1. Screen Flow

33.2. Screen Description

#	Category	Control Type	Datatype	Default Value	Description
1	Back	Icon	N/A	--	Back to Home screen
2	Ttitle	Label	Text	--	*"Notification"*
List					

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3	Content	Label	Text	--	
4	Date	Label	Text	--	

33.3.   Processing Logic

Step	Operation	Perform	Description
1	Initialize screen	KH	Customer choose "Notification" from Home Screen or User - Notification
		AC	App Client initializes the notification screen Submit information to CS to get information
		CS	Query information and return Notification list for AC sorted by time of nearest to furthest notification received
		AC	Display information according to the returned CS
2	Scroll down	AC	Submit page loading information to CS to get information
		CS	Query information and return Notification list for AC sorted by time of nearest to furthest notification received
		AC	Display information according to the returned CS

III. PROFESSIONAL DETAILS BE

34. Manufacture Management

- **Purpose:** The customer can manage the manufacturer.
- **Participating actor:** Customer, Web Client, Core SCEM.
- **Pre-conditions:** Customer successfully login to SCEM management system.
- **Desired results:** Customers can easily manage the manufacturer.

34.1.   Screen Flow

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Manufacture Management

Name

Search

Create New ⊕

#	name	email	phone	Tax ID	Model	
1	RaceResult	support@raceresult.com	035772829109	1111111	Model 1, Model 2	Edit | Model
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

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New Manufacture

Manufacture name

Manufacture email

Manufacture phone number

Manufacture owner

Technical Support Email

Technical support phone

Technical person name

Tax ID

Manufacturing Standards

Manufacturing sites

Update

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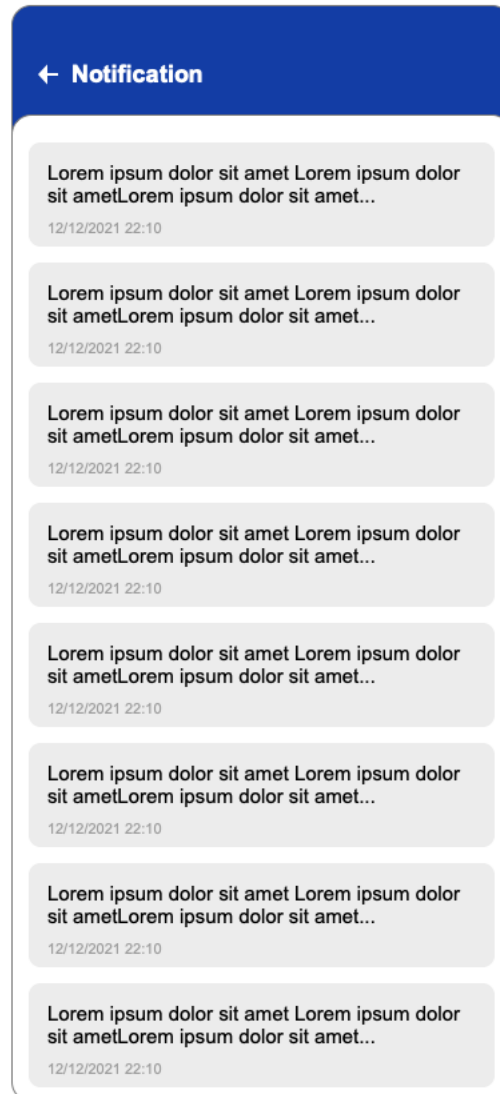Designed by VCA International Inc. for SCEM

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34.2. Screen Description

#	Category	Control Type	Datatype	Default Value	Description
1	Back	Icon	N/A	--	Back to Home page
2	Ttitle	Label	Text	--	*"Manufacture Management"*
3	Name	TextBox	Text	--	
4	Search	Button	N/A	--	
5	Create New	Button	N/A	--	Redirect to New Manufacture
Table					
5	Name	Label	Text	--	
6	Email	Label	Text	--	
7	Phone	Label	Text	--	
8	TaxId	Label	Text	--	
9	Model	Label	Text	--	
10	Action	Icon	N/A	--	Edit, Model
Create Or Edit					
1	Back	Icon	N/A	--	Back to Manufacture Management
2	Title	Label	Text	--	"Create Manufacture" Or "Edit Manufacture"
3	Name	TextBox	Text	--	
4	Email	TextBox	Text	--	
5	Phone Number	TextBox	Text	--	
6	Owner	TextBox	Text	--	
7	Support Email	TextBox	Text	--	
8	Support Phone	TextBox	Text	--	
9	Support Name	TextBox	Text	--	
10	TaxId	TextBox	Text	--	

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11	Manufacturing Standards	TextBox	Text	--	
12	Manufacturing sites	TextBox	Text	--	
13	Update	Button	N/A	--	

34.3. Processing Logic

Step	Operation	Perform	Description
1	Initialize screen	KH	Customer choose "Manufacture Management" from menu
		WC	WC initializes the list screen
		CS	Query company information, list sorted by alphabet
		WC	Show list for CS to return
2	Customer click "Search"	KH	Customers enter Name information to Search
		WC	Submit information to CS to get list information
		CS	Query company information, list by Name to search and sort alphabetically
		WC	Show list for CS to return
3	Initialize screen Create Or Edit	KH	Customer choose Create Or Edit from Manufacture Management
		WC	Web Client initiates the Create Or Edit screen ➢ Send information to CS to get ManufactureId information if in Edit mode
		CS	Query information by ManufactureId and return information to WC
		WC	Show Manufacturer information
4	Customer click "Update"	AC	Enter information and press Update
		CS	Receive information and process information:

			• Record Manufacture information in DB Return test results to Web Client.
		WC	<u>Check the returned result:</u> **- Not valid:** • Show notification for customer **- Valid:** Display a success message and transfer the customer to the Manufacture Management screen.

35. Model Management

- **Purpose:** Customers manage models.
- **Participating actor:** Customer, Web Client, Core SCEM.
- **Pre-conditions:** Customer successfully login to SCEM management system.
- **Desired results:** Customers can easily manage device models.

35.1.   Screen Flow

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Manufacture Management

Name

Manufacture

Manufacture Name

Search

#	Model	description	Equipment Type	Manufacture	
1	Model 1	cbda	035772829109	1111111	Edit
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

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35.2. Screen Description

#	Category	Control Type	Datatype	Default Value	Description
1	Back	Icon	N/A	--	Back to Home page
2	Ttitle	Label	Text	--	*"Model Management"*
3	Name	TextBox	Text	--	
4	Manufacture	DropDown List	N/A	All	List taken from Manufacture Management configuration
5	Search	Button	N/A	--	
6	Create New	Button	N/A	--	Redirect to New Model
Table					
5	Model	Label	Text	--	

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6	Description	Label	Text	--	
7	Equipment Type	Label	Text	--	
8	Maufacture	Label	Text	--	
9	Action	Icon	N/A	--	Edit
Create Or Edit					
1	Back	Icon	N/A	--	Back to Model Management
2	Title	Label	Text	--	"Create Model" Or "Edit Model"
3	Maufacture	DropDown List	N/A	--	List taken from Manufacture Management configuration
4	Equipment Type	DropDown List	N/A	--	List taken from the Equipment Type configuration
5	Model	TextBox	Text	--	
6	Description	TextBox	Text	--	
7	Update	Button	N/A	--	

35.3. Processing Logic

Step	Operation	Perform	Description
1	Initialize screen	KH	Customer choose "Model Management" from menu
		WC	WC initializes the list screen Submit information to CS to get list information
		CS	Query company information, list sorted by alphabet
		WC	Show list for CS to return
2	Customer click "Search"	KH	Customer enters Name, Manufacture information to Search
		WC	Submit information to CS to get list information

		CS	Query company information list by Name, Manufacture needs to search and sort alphabetically
		WC	Show list for CS to return
3	Initialize screen Create Or Edit	KH	Customer choose Create Or Edit from Model Management
		WC	Web Client initiates the Create Or Edit screen ➢ Send information to CS to get ModelId information if in Edit mode
		CS	Query information by ModelId and return information to WC
		WC	Display Model information
4	Customer click "Update"	AC	Enter information and press Update
		CS	Receive information and process information: **- Model already exists:** • Check existing model information according to Manufacture, Equipment Type, ModelName. Return notice to AC "Model already exists, please check again." **- Valid:** • Record Manufacture information in DB Return test results to Web Client.
		WC	Check the returned result: **- Not valid:** • Show notification for customer **- Valid:** Display the success message and transfer the customer to the Model Management screen.

36. **Yearly release**

- **Purpose:** The customer manages the year of the device.

- **Participating actor:** Customer, Web Client, Core SCEM.

- **Pre-conditions:** Customer successfully login to SCEM management system.
- **Desired results:** Customers easily manage the years of the device.

36.1. Screen Flow

Yearly Release					
Name			**Model**		
			Model 1		
			Search		
#	**Model**	**Name**	**Year**	**Model Code**	
1	Model 1	cbda	2021	1111111	Edit
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

Prev 1 2 3 Next

Yearly release

Model

Model 1 ▾

Year	Model Code	Suffix

Capacity	Engine

Available colors

☑ White
☑ Red
☑ Blue

Doccumentation

Warranty Policy

Picture

Name	Description	Date
A1		31/03/2022
A2		30/06/2022

Update

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36.2.   Screen Description

#	Category	Control Type	Datatype	Default Value	Description
1	Back	Icon	N/A	--	Back to Home page
2	Ttitle	Label	Text	--	*"Yearly release"*
3	Name	TextBox	Text	--	
4	Model	DropDown List	N/A	All	List taken from Model Management configuration
5	Search	Button	N/A	--	
6	Create New	Button	N/A	--	Redirect to New Yearly release
Table					
5	Model	Label	Text	--	
6	Year	Label	Text	--	
7	Model Code	Label	Text	--	
8	Description	Label	Text	--	
9	Action	Icon	N/A	--	Edit
Create Or Edit					
1	Back	Icon	N/A	--	Back to Yearly release
2	Title	Label	Text	--	"Create Yearly release" Or "Edit Yearly release"
3	Model	DropDown List	N/A	--	List taken from Model Management configuration
4	Year	TextBox	Text	--	
5	Model Code	TextBox	Text	--	
6	Suffix	TextBox	Text	--	
4	Engine	TextBox	Text	--	
5	Avaliable Colors	CheckListBox	N/A	--	

6	Documentation	TextBox	Text	--	
4	Warranty Policy	TextBox	Text	--	
5	Picture	File	N/A	--	
7	Update	Button	N/A	--	

36.3. Processing Logic

Step	Operation	Perform	Description
1	Initialize screen	KH	Customer choose "Yearly release" from menu
		WC	WC initializes the list screen Submit information to CS to get list information
		CS	Query company information, list sorted by alphabet
		WC	Show list for CS to return
2	Customer click "Search"	KH	Customers enter Name, Model information to Search
		WC	Submit information to CS to get list information
		CS	Query company information, list by Name, Model to search and sort alphabetically
		WC	Show list for CS to return
3	Initialize screen Create Or Edit	KH	Customer choose Create Or Edit from Yearly release
		WC	Web Client initiates the Create Or Edit screen ➢ Send information to CS to get Id information if in Edit mode
		CS	Query information by Id and return information to WC
		WC	Display Yearly release information
4	Customer click "Update"	AC	Enter information and press Update
		CS	Receive information and process information:

			- Model already exists: • Check the information Yearly release already exists under Model, Model Code, Year. Return notice to AC "Model already exists, please check again." **- Valid:** • Record Yearly release information in DB Return test results to Web Client.
		WC	Check the returned result: **- Not valid:** • Show notification for customer **- Valid:** Display a success message and transfer the customer to the Yearly release screen.

37. Equipment Management

- **Purpose:** Customers can manage their devices.
- **Participating actor:** Customer, Web Client, Core SCEM.
- **Pre-conditions:** Customer successfully login to SCEM management system.
- **Desired results:** Customers can easily manage their devices.

37.1. Screen Flow

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Equipment Management

Model

IMEI

Search

#	Model Code	IMIE	Chassis	Color	date	
1	Code 1	2021-980				Edit
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

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37.2.   Screen Description

#	Category	Control Type	Datatype	Default Value	Description
1	Back	Icon	N/A	--	Back to Home page
2	Ttitle	Label	Text	--	*"Equipment Management"*

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3	Model	DropDown List	Text	--	List taken from Model Management configuration
4	IMEI	TextBox	Text	--	
5	Search	Button	N/A	--	
6	Create New	Button	N/A	--	Redirect to New Equipment
Table					
5	Model	Label	Text	--	
6	IMEI	Label	Text	--	
7	Chassis	Label	Text	--	
8	Color	Label	Text	--	
9	Date	Label	Date	--	
10	Action	Icon	N/A	--	Edit
Create Or Edit					
1	Back	Icon	N/A	--	Back to Equipment Management
2	Title	Label	Text	--	"Create Equipment" Or "Edit Equipment"
3	Model	DropDown List	N/A	--	List taken from Model Management configuration
4	IMEI	TextBox	Text	--	
5	Chassis	TextBox	Text	--	
6	Color	TextBox	Text	--	
7	Date	TextBox	Date	--	
8	Documentation	TextBox	Text	--	
9	Warranty Policy	TextBox	Text	--	
10	Update	Button	N/A	--	

37.3. Processing Logic

Step	Operation	Perform	Description
1	Initialize screen	KH	Customer choose "Equipment Management" from menu
		WC	WC initializes the list screen Submit information to CS to get list information
		CS	Query company information, list sorted by alphabet
		WC	Show list for CS to return
2	Customer click "Search"	KH	Customers enter information Model, IMEI to Search
		WC	Submit information to CS to get list information
		CS	Query company information list by Model, IMEI need to search and sort alphabetically
		WC	Show list for CS to return
3	Initialize screen Create Or Edit	KH	Customer choose Create Or Edit from Equipment Management
		WC	Web Client initiates the Create Or Edit screen ➢ Send information to CS to get Id information if in Edit mode
		CS	Query information by Id and return information to WC
		WC	Display Equipment Management information
4	Customer click "Update"	AC	Enter information and press Update
		CS	Receive information and process information: **- IMEI already exists:** • Check existing information by Model, IMEI. Return notice to AC "IMEI already exists, please check again." **- Valid:** • Record equipment information in DB Return test results to Web Client.

		WC	Check the returned result:
			- Not valid:
			• Show notification for customer
			- Valid: Display success message and transfer customer to Equipment Management screen.

38. Tracker Management

- **Purpose:** Tracker/Sensor Management Client.
- **Participating actor:** Customer, Web Client, Core SCEM.
- **Pre-conditions:** Customer successfully login to SCEM management system.
- **Desired results:** Customers easily manage information related to Tracker/Sensor.

38.1. Screen Flow

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Tracker Management

Type

| All ▾ |

Site

| Site 1 ▾ |

Service

| All ▾ |

ID

| |

Search

Create New ⊕

#	Service	Type	Site	ID	API KEY	
1	RaceResult	Tracker	NY	1111111	kkfdjfsfs	Edit
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						

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38.2. Screen Description

#	Category	Control Type	Datatype	Default Value	Description
1	Back	Icon	N/A	--	Back to Home page
2	Ttitle	Label	Text	--	*"Tracker Management"*

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3	Type	DropDown List	N/A	All	- All - Tracker - Sensor
4	Site	DropDown List	N/A	All	List taken from Site Management configuration
5	Service	DropDown List	N/A	All	List taken from configuration
6	ID	TextBox	Text	--	
7	Search	Button	N/A	--	
8	Create New	Button	N/A	--	Redirect to New Tracker
Table					
5	Type	Label	Text	--	
6	Site	Label	Text	--	
7	Service	Label	Text	--	
8	ID	Label	Text	--	
9	ApiKey	Label	Text	--	
10	Action	Icon	N/A	--	Edit
Create Or Edit					
1	Back	Icon	N/A	--	Back to Tracker Management
2	Title	Label	Text	--	"Create Tracker" Or "Edit Tracker"
3	Type	DropDown List	N/A	--	- Tracker - Sensor
4	Site	DropDown List	N/A	--	List taken from Site Management configuration
5	Service	DropDown List	N/A	--	List taken from configuration
6	ID	TextBox	Text	--	

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7	ApiKey	TextBox	Text	--	
8	Api Secret	TextBox	Text	--	
9	Warranty Policy	TextBox	Text	--	
10	Update	Button	N/A	--	

38.3. Processing Logic

Step	Operation	Perform	Description
1	Initialize screen	KH	Customer choose "Tracker Management" from menu
		WC	WC initializes the list screen Submit information to CS to get list information
		CS	Query company information, list sorted by alphabet
		WC	Show list for CS to return
2	Customer click "Search"	KH	Customers enter Type, Site, Service, ID information to Search
		WC	Submit information to CS to get list information
		CS	Query company information list by Type, Site, Service, ID to search and sort alphabetically
		WC	Show list for CS to return
3	Initialize screen Create Or Edit	KH	Customer choose Create Or Edit from Tracker Management
		WC	Web Client initiates the Create Or Edit screen ➢ Send information to CS to get Id information if in Edit mode
		CS	Query information by Id and return information to WC
		WC	Display Tracker Management information
4	Customer click "Update"	AC	Enter information and press Update
		CS	Receive information and process information:

			- Tracker ID already exists: • Check existing information by Type, Site, Service, ID. Return notice to AC "Tracker ID already exists, please check again." **- Valid:** • Record Tracker information to DB Return test results to Web Client.
		WC	Check the returned result: **- Not valid:** • Show notification for customer **- Valid:** Display success message and transfer customer to Tracker Management screen.

39. RAW DATA

- **Purpose:** Customers manage the Raw Data.
- **Participating actor:** Customer, Web Client, Core SCEM.
- **Pre-conditions:** Customer successfully login to SCEM management system.
- **Desired results:** Customers can easily search and view tracker/sensor data information.

39.1.   Screen Flow

39.2. Screen Description

#	Category	Control Type	Datatype	Default Value	Description
1	Back	Icon	N/A	--	Back to Home page
2	Ttitle	Label	Text	--	"Raw Data"

3	Type	DropDown List	N/A	All	- All - Tracker - Sensor
4	Site	DropDown List	N/A	All	List taken from Site Management configuration
5	Service	DropDown List	N/A	All	List taken from configuration
6	ID	TextBox	Text	--	
7	Search	Button	N/A	--	
Table					
5	Type	Label	Text	--	
6	Site	Label	Text	--	
7	Service	Label	Text	--	
8	ID	Label	Text	--	
9	Lat	Label	Text	--	
10	Lon	Label	Text	--	

39.3. Processing Logic

Step	Operation	Perform	Description
1	Initialize screen	KH	Customer choose "Raw Data" from menu
		WC	WC initializes the list screen Submit information to CS to get list information
		CS	Query company information, list sorted by alphabet
		WC	Show list for CS to return
2	Customer click "Search"	KH	Customers enter Type, Site, Service, ID information to Search
		WC	Submit information to CS to get list information

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		CS	Query company information list by Type, Site, Service, ID to search and sort alphabetically
		WC	Show list for CS to return