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| honda_slogan | CPSD Department: Connected Vehicle  Project ID/Title: –PR06762/PE Marine Connectivity |
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Honda Marine

BRD Document

Version 1.13

1/15/2021

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1. Revision History

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| --- | --- | --- | --- |
| Version | Date | Description | By |
| 1.0 | 19/02/2020 | Initial Draft | Ambika |
| 1.1 | 03/02/2020 | Updated Paragraphs with 3.0 | Flowers |
| 1.2 | 03/04/2020 | Modified steps in normal workflow sections 1 thru 13 | Flowers |
| 1.3 | 03/06/2020 | Added process flow descriptions | Flowers |
| 1.4 | 03/09/2020 | Changed Format of Process Flows, updated content tables: Boat health to Notification | Ambika |
| 1.5 | 03/11/2020 | Updated tables Explore, Trip planner, Subscription, Landing screen, Speed alerts | Ambika |
| 1.6 | 03/13/2020 | Login as a reusable flow diagram | Ambika |
| 1.7 | 03/16/2020 | Schedule service, Explore, Social added as  sub-components. Admin Portal use case added | Ambika |
| 1.8 | 03/17/2020 | Fleet Portal use cases, Cloud setup use cases | Ambika |
| 1.9 | 03/21/2020 | Internal review, revisited exceptions, business rules, scheduling service, Service management. Split use cases feature wise user stories.  Notifications Use case wise | Ambika Chethan Suhas  Jithesh |

* 1. Review and Approval

|  |  |  |  |
| --- | --- | --- | --- |
| Version | Date | Description | By |
|  |  |  |  |
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1. Project Overview

To provide connected services for Honda Marine to improve service support time while improving customer’s confidence and awareness while boating. These services will provide customers with reliable, safe and comfortable boating experience. To provide better Boat Owner registration experience, and advanced safety features, enhance customer experience by providing product awareness, dealer network and timely maintenance though Honda connected App. To increase Honda sales by improving customer satisfaction, customer engagement and retention.

**Overall Vision:**

* To be #1 Marine Mobility Leader
* Safe, Comfortable Reliable Boating experience
* Re-establish the foundation of Honda business 🡪 study the customer needs and build products that addresses that gap
  1. ****Goals & Strategy****

**Goals:**

* OB MFG to a leader in propulsion systems
* Improve retention, customer engagement, market share
* Expand profit, re-engage market with existing tech
* Facilitate Dealers & OEMs to improve customer relationships

To achieve the goals this project provides IoT based solution for the boating industry along with the advent of IoT (Internet of Things) and smart sensors.

The Honda Marine solution for boating includes both Mobile, and Fleet Applications that interface with the telematics control unit (TCU) hardware and gateway.

**Mobile App for boat monitoring:** Allows Boat Owners monitor their boat health, location and route tracking. It enables Boat Owners to access current parameters of their vessels. It will alert the Boat Owner when events such as Fuel levels, Engine health, draining batteries, failures in other onboard systems, water intrusion, etc.

As a value addition to customer, the app provides features like geo fence creation, trip exploring/planning, finding a dealer, social media connect etc.

**Fleet Portal** – Is a B2B Web app that allows fleet owners to monitor the location, and performance of their boats from remote locations. They should be able to control the positions and parameters of their vessels and obtain health of their boats as well. The App provides additional features like scheduling service, and campaigning. Marine Fleet Portal allows Fleet club owners to be constantly informed on status and location of their property.

**Admin Portal –** Is a Reporting Portal for the Honda Marine management, which includes an analytical dashboard that shows performance metrics of the connected boat, and usage pattern(s).

* 1. ****Assumptions****

|  |  |  |
| --- | --- | --- |
| Sl no. | Assumptions | Source System |
| 1 | App development for both iOS (Ver. 11,12,13 & 14) and Android (Ver. 8,9,10 & 11) platforms |  |
| 2 | HondaLink Marine Customer registration flows through Universal Registration System and HondaLink Marine Customer Authentication flows through HIDAS system [Boat Owner Registration & Authentication] | HIDAS |
| 4 | HLM shall be integrating the with Honda Backoffice systems to fetch the Dealer data, Parts, PGN codes TCU, accessories and Service offerings from Honda. The integration method is assumed to be API integration. | ECRM/ B2C/ ? |
| 5 | The HLM Web services and the Fleet & Admin Web Application shall be hosted on AWS. | Honda AWS |
| 8 | DeviceWise from Telit will be used as the IoT platform | Telit DeviceWise |
| 10 | The Mobile App and Portals (Fleet, Admin) shall support US English only. However, the design shall support localization. |  |
| 11 | Localization support will be only for static content such as labels for the fields, buttons, checkboxes, error messages etc. and not dynamic content, which shall be entered by the user or fetched from the TCU. |  |
| 12 | Only US English shall be considered for Testing. |  |

* 1. ****Success Metrics/KPIs****

|  |  |
| --- | --- |
| **Goals** | **Objectives** |
| To create a Honda branded Mobile, Fleet and CCS portal with all listed features *(refer scope section)* for the Honda specified use cases, user experience. | * Deliver cloud solution which receives TCU real time data through Telit cloud, process subsequent data and expose API’s that can be consumed by all front-end applications. * Deliver the following working apps covering end to end use cases and features in scope of the SOW to Honda. (*Use cases specified are listed in subsequent scope sections*) * Mobile App * Fleet Portal * CCS Portal |
| Configure the IOT & Cloud applications connected to Honda branded TCU hardware to monitor through NMEA Network and Engine parameters:  -high water status  -door entry (through separate sensors)  -temperature status  -bilge  -battery status  -GPS Antenna for geo-fencing and location detection | * Allow key stakeholders, commercial and retail customers and partners to experience the Honda connected application along with the installed hardware |
| Integration test and deploy applications for mass production in Honda AWS Environment. | * Complete detailed requirements for the Mass Production App including Business requirements, Technical Specifications, Architecture Review Board Sign off and finalized UX deliverables(J0) * Implement and Integrate end to end use cases and features in scope of the SOW to Honda. (*Use cases specified are listed in subsequent scope sections*) |

* 1. ****Design Considerations****

A high level system design diagram is presented below.

|  |
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**Field (Things/Devices)**

This is the southbound part of the solution, where the devices and sensors are connected. All the sensors in the boat and engine connects to TCU and communicates with IOT module to send the sensor data to the cloud using a middleware component in it (Telit).

**Platform Services**

IOT Platform service will help to establish the connectivity and data collection from the TCU and send it to cloud. Telit deviceWise will be used as IOT platform in this case which help for the connectivity management and data collection from the Gateway.

**Cloud**

AWS will be used as Cloud to store the boat data and provide API for the visualization component to display the boat data.

**Visualization**

Visualization tool are the user interface to show the connected platform feature to the users. Mobile and web app will be the visualization component which is designed based on role. Boat owner will have the mobile app to use it for visualizing real time and historical data of the boat. Dealer/OEM and boat club owners will have access to the web app which will help them to see multiple boat data together and monitor their fleet.

**Enterprise Integration**

Enterprise integration with existing systems are required to fetch the data for HondaLink Marine platform. All the different enterprise integration points are described in the below use case sections.

* 1. ****Technical Considerations****

|  |  |
| --- | --- |
| **Area** | **Technical Consideration** |
| Device | Gateway (TCU) will be complaint to NMEA standards. |
| Cellular connectivity to communicate with IOT platform |
| Satellite connectivity when cellular connectivity is not available. Within 15 minutes of loss of connectivity, devices switches to Satellite connection. |
| During the time devices goes offline, the data is stored locally in the device till connection is established. The local store is around ~8GB which can store up to 3 months of data approximately. Once the connection is established the data shall be pushed to HLM, latest messages on priority. |
| Sensors are connected to TCU (wired and wireless) to fetch the sensor values |
| Gateway works in different Standby modes with respect to power consumption   * Standby with update every 10 min * Standby with update every hour * Standby with update every 6 hours * Standby with update every day |
| Platform | Telit DeviceWise platform is considered as IOT platform |
| MQTT protocol with TR50 broker is considered as protocol to send the data to platform |
| IOT platform is hosted in secure AWS platform |
| Cloud to cloud integration option considered for data transfer to the storage cloud platform. |
| Cloud | Secure AWS cloud is considered for storing the data (Owned by Honda) |
| Honda Gateway will be used as API gateway for all internal and external component integration. |
| HLM Customer registration flows through Universal Registration. |
| HondaLink Marine Customer Authentication flows through HIDAS. |
| Parts and accessories for the TCU device inventory is handled through Honda internal system (IN portal). |
| PostgreSQL is considered as database to store the boat data and sensor values. |
| Development of backend API for visualization component is considered Java spring boot microservice architecture. |
| Mobile app | Below are the mobile devices considered for application development and testing. |
| Web app | Below browsers shall be supported for web application development and testing. |

In scope devices/OS list:

|  |  |  |  |
| --- | --- | --- | --- |
| O/s | Versions | Phone model | Screen Resolution |
| IOS | 11,12,13 & 14 | iPhone 12,  iPhone 12 mini | XXHDPI & XXXHDPI |
| Android | 8, 9, 10 & 11 | Samsung galaxy S9  (64 GB 4GB RAM)  Google pixel 5 (128 GB 8 GB RAM) | XXHDPI & XXXHDPI |

In scope Web Browsers list:

|  |  |  |
| --- | --- | --- |
| Web Browser | Version | Resolutions |
| Chrome | 49 and above | Responsive UI. (Shall test it on any 2 resolution (PC/Laptop) specified by Honda. |
| Firefox | 50 and above |
| Edge | 14 and above |

**Integration Matrix:**

****

**Business Rules & Error Messages:**

****

* 1. ****Security Consideration****

|  |  |
| --- | --- |
| **Area** | **Security Consideration** |
| Device | Module secured and personalized at time of manufacture |
| Device is ‘born’ with ID, credentials and SIM functions embedded inside |
| Provides security microservices |
| Secure boot |
| Transport | Device to cloud over encrypted communication for secure end-to-end data and control |
| Platform | Cloud servers are protected against security threats (e.g. role-based security, TLS, VPN) |
| “Thing” IDs and credentials are automatically synchronized in the IOT Portal before shipment |
| Cloud | Inherited TR50 security authentication – every JSON payload has a session token after the initial entity authentication. |
| Using internet-facing protocols such as HTTP/S, MQTT/S.  Each of these protocols are using TLS. |
| Secure cloud environment – AWS |
| Mobile app | Multifactor authentication: The app shall be designed to have multifactor authentication, first level of user authentication (username / password) or Touch Id or Face recognition. Second level would be a 4-digit pin code. |
| Authorization: Features that are authorized to user are enabled for access. The feature could be based on type of subscription. |
| Session Management |
| Secure API’s (HTTPS) |
| The app shall have privacy policy implemented. End user or the boat owner can opt-in or opt-out data sharing or data uploads. |
| The data sharing shall comply to CCPA regulations. Users personal data, Boat identification data, user location address, current location of boat, current location user shall be encrypted and shall be viewable only after decrypting. Encryption and decryption shall be taken care within the mobile app and the web portals. |
| NACL (Network Access Control Lists) for production, development, test, live environment. |
| General | Risk Assessment/Management. |
| Vulnerability & Penetration Assessment. |

1. Main Use Cases

The following table list the main EPICs associated with the Honda Marine Solution:

|  |  |  |
| --- | --- | --- |
| **Section #** | **Use Case** | **Description** |
| 3.1 | Mobile App use cases | All Epics and Features covered in the Honda Marine Mobile App |
| 3.2 | Backend Cloud Use cases | Use cases to setup the backend system and cloud configuration |
| 3.3 | Admin Portal | Web application for Reporting system accessed by Honda Admin |
| 3.4 | Fleet Portal | Web Application for Fleet Club owners. |

* 1. Mobile App use cases
     1. Boat/Engine Health (M.1.0)

|  |  |  |  |
| --- | --- | --- | --- |
| **ID** | **Use Case** | **Feature** | **Use case description** |
| M.1.0 | Boat/Engine Health | [Monthly Report](#M15) (Email) | As a boat owner, I would like to have my boat health emailed to me on my registered E-mail ID every month so that I can review the performance trend of the following parameters during that month.  • Engine Oil Pressure,  • Engine temperature,  • Bilge Pump • Battery life • Fuel Levels  • Other sensors • PGN codes |
| Health Report History | As a boat owner, I would like to view my boat health report history so that I can review the performance trend of the following parameters during a selected period of time.  • Engine Oil Pressure,  • Engine temperature,  • Bilge Pump • Battery life • Fuel Levels  • Other sensors • PGN codes |
| [Schedule Service](#M11)  (Engine service) | As a boat owner, I would like to find Dealer list for engine service, so that I can schedule an Outboard motor services request for the selected dealership. |
| As a boat owner, I would like to select a Dealer for engine service, so that I can get the details to schedule a service with the selected dealer. |
| As a boat owner, I would like to set up a manual entry reminder for my upcoming engine service which is scheduled by calling the dealer without accessing from HLM Application. |
| Schedule Service (Boat service) | As a boat owner, I would like to find Honda recommended dealers who does the boat services, so that I can schedule service request for the boat and its related accessories. |
| As a boat owner, I would like to select the boat dealer for my boat service, so that I can get the details to schedule the boat service. |
| As a boat owner, I would like to set up a manual entry reminder for my upcoming boat service which is scheduled directly on the dealer website or by calling the dealer without accessing from HLM Application. |
| [Schedule Service](#M12) (TCU & Accessories) | As a boat owner, I would like to select a Honda recommended dealer for TCU & accessories, so that I can schedule a service for the TCU and related accessories like sensors. |
| As a boat owner, I would like to set a reminder for scheduled service from TCU/accessories dealerships recommended by Honda, so that I remind myself about upcoming servicing. |
| [Understanding PGN Code](#M13) (MIL, Maintenance Minder) | As a boat owner, I would like to have a PGN Code Description (Proprietary and non-proprietary) along with Error notification, date & time of occurrence, so that I can understand the error notification and if required schedule a service request with my preferred dealership list. |
| [Messaging / Notifications](#M16) | As a boat owner, I would like to get boat health issue notification by app/SMS/email to schedule a service request based on the health information. |
| As a boat owner, I would like to get PGN Code and description notification by app/SMS/email, to schedule a service request based in the reported issue. |
| As a boat owner, I would like to get scheduled service notifications by app, so that I do not miss the appointment. |
| As a boat owner, I would like to turn on/off the notifications. |
| [Weather alerts](#M17) | As a boat owner, I would like to know the weather report at my boat location, for today and next 5 days, so that I can plan my trip better. |
| [Launch & Storage](#M18) Requests | As a boat owner, I would like to set a reminder for Launch request, so that I can remind myself to get ready with the required request for Launch |
| As a boat owner, I would like to set a reminder for Storage request, so that I can remind myself for sending out a request for Storage |
| [Calendar Reminder for upcoming services & Events](#M19) | As a boat owner, I would like to set a reminder for the upcoming services and events. |

* + - 1. Monthly Report (History)

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| Release | **Release 1.0** |
| [**Use case**](#M10) **ID** | **M.1.1** |
| **Actors:** | * Boat Owner/user, HLM backend system |
| **Preconditions:** | * Boat Owner has registered E-mail ID on the Mobile App during registration. * Boat enrolment process is completed. |
| **Post conditions:** | * Boat Owner can see the Boat Health trend in the inbox of E-mail ID registered. |
| **Normal Flow:** | **Monthly Report**   1. A backend scheduler program generates monthly report from historical data and emails to the registered email id on the 5th of every month 2. Health Report is generated as a PDF, and sent as an attachment in email to the registered email id |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * Mobile Application not Connected: During any workflow, if the internet connectivity is lost on the mobile device. The device shows message “No internet connection. Try again later”. * Email server does not work: The report remains in Queue until the email server is available |
| **Frequency of Use:** | * Boat health monitoring is one of the key features of Honda marine mobile app and would be the most used feature. |
| **Systems Impacted** | * Mobile app * HLM backend system |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Threshold** | **Reports:**   * **Monthly** * **The Report is generated on 5th of every month** |
| **Security considerations** | **Refer Section 2.6 for security consideration** |
| **Definition of Done:** | * **Boat Health report with all health parameters emailed to the registered E-mail ID.** |

* + - 1. Health Report History

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| Release | **Release 1.0** |
| [**Use case**](#M10) **ID** | **M.1.2** |
| **Actors:** | * Boat Owner/user, HLM backend system |
| **Preconditions:** | * Boat Owner has opted-in to collect the data related to the boat’s engine. |
| **Post conditions:** | * Boat Owner can see the Boat Health report history on the HLM App. |
| **Normal Flow:** | 1. The user shall launch the Mobile Application and successfully logs in 2. The Mobile App landing page shall be displayed to the user 3. User shall tap the “My Boat” option available on the landing page 4. User Scrolls down to support section to view the Health Report History link on the device. 5. User shall tap the link and can see the history of the health report for the selected period. |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * Mobile Application not Connected: During any workflow, if the internet connectivity is lost on the mobile device. The device shows message “No internet connection. Try again later”. |
| **Frequency of Use:** | * Boat health monitoring is one of the key features of Honda marine mobile app and would be the most used feature. |
| **Systems Impacted** | * Mobile app * HLM backend system |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Threshold** | * **NA** |
| **Security considerations** | **Refer Section 2.6 for security consideration** |
| **Definition of Done:** | * **Boat Health report with all health parameters can for a selected period shall be displayed.** |

* + - 1. Schedule Service (Outboard Motor - Engine)

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| Release | **Release 1.0** |
| [**Use case**](#M10) **ID** | **M.1.3** |
| **Actors:** | * Boat Owner/User, Backend OSS Integration Layer , Dealer Systems |
| **Preconditions:** | * User launches HLM App and successfully logs in. * User receives monthly health report for both boat and engine parameters with PGN code and description. |
| **Post conditions:** | * User finds list of preferred dealers. * User schedules service request with selected dealer either by calling on their phone number or through their website. * User sets a reminder on the device calendar |
| **Normal Flow** | 1. Registered user of Marine app gets monthly health report for the outboard motor 2. User can schedule service for outboard motor based on the health report parameters   **Find Dealer**   * 1. Start HLM App on the mobile device.   2. Sign in to the HLM app and navigate to home screen   3. On “MyBoat”, scroll down to Support section      1. Select "Find a dealer" to get list of preferred dealers based on the POI/Dealer search that are registered with Honda system.      2. Preferred Dealers registered with Honda system shall be listed.      3. On selecting a dealer, if phone number of the dealer is updated then it should be displayed for the user to dial.      4. In case if the dealer has a website then the URL for the website shall be provided for the user. On click of the OSS URL, user shall be navigated to web view of the Dealer website for service assistance.      5. User shall call the dealer check for available service date and request for Schedule service.      6. If user requires a change in scheduled service date, then user can call and reschedule the date.      7. User can call and cancel the schedule service date in case of change in plan.  1. User sets his device calendar for scheduled service    * 1. Once user get the preferred dealer information through app, user calls and book the service manually and get an appointment.      2. Once user gets the appointment details (date, time) user can login to HLM app and set a service reminder to get notified.      3. User gets an option in the app to add service date and time as event in calendar to get notification from the device.      4. User shall have option to snooze or delete the reminder |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * No Connectivity: If internet connectivity is lost during the workflow, the device shows message “No internet connection. Try again later” * No response from Backend system : When user select “Find a dealer”, if the backend system cannot be reached or there is no response, the HLM shows up a message “Sorry, could not connect to Honda backend system”. * Invalid OSS URL: If OSS URL is invalid, HLM shows up a message “Website not available” |
| **Frequency of Use:** | * Only when user finds the need for a service scheduling. |
| **Systems Impacted** | * HLM Mobile app * HLM backend system |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Threshold** | **Reminders**   * On the day of the service event created (calendar reminder) |
| **Security Considerations** | Refer section 2.6 of the document for the security consideration. |
| **Definition of Done** | * User should be able to select and get dealer phone number if updated * User should be able to manually set reminder for the service date and time * User gets calendar notification based on the service reminder set. |

* + - 1. Schedule Service (Boat Service)

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| **Release** | **Future Backlog** |
| **[Use case](#M10) ID** | **M.1.4** |
| **Actors:** | * Boat Owner/User, HLM App, Backend OSS (Online schedule service) |
| **Preconditions:** | * User launches HLM App and successfully logs in. * User receives monthly health report for both boat and engine parameters with PGN code and description. |
| **Post conditions:** | * User finds Honda recommended dealers for Outboard motor, close to preferred locations * User schedules service request with selected dealer * User sets a reminder on the device calendar |
| **Normal Flow** | 1. Registered user of Marine app gets monthly health report for the boat and engine 2. User can schedule service for boat based on the health report parameters   **Find Dealer**   * 1. Start HLM App on the mobile device.   2. Sign in to the HLM app and navigate to home screen   3. On “MyBoat”, scroll down to Support section      1. Select "Find a dealer" to get list of Honda’s recommended dealers close to users preferred location      2. If user does not select preferred location, his current location is considered the preferred location      3. Honda registered boat dealers and recommended boat dealers around user preferred location shall be listed.      4. HLM Marine shows up dealer location on the map. Lists the dealers with OEM dealer on the top (Dealer with service option for both Engine and Boat shall be indicated in the list).      5. Select dealer and tap on to get the details to schedule Service      6. User gets the telephone number and address details of the dealer and call them directly to book for the service.      7. If selected dealer has Online Scheduling Service, open OSS website in a browser window on the app to book service appointment online.  1. User sets his device calendar for scheduled service    * 1. Once user get the preferred dealer information through app, user calls and book the service manually and get an appointment.      2. Once user get the appointment details (date, time) user can login to HLM app and set a service reminder to get notified.      3. User gets an option in the app to add service date and time as event in calendar to get notification from the device.   User shall have option to snooze or delete the reminder |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * No Connectivity: If internet connectivity is lost during the workflow, the device shows message “No internet connection. Try again later” * No response from Backend system : When user select “Find a dealer”, if the backend system cannot be reached or there is no response, the HLM shows up a message “Sorry, could not connect to Honda backend system”. * Dealer location address does not exist: If user selects a dealer whose location cannot be shown on the map, HLM app shows up a message “This address has not been verified” |
| **Frequency of Use:** | * Only when user finds the need for a scheduling service for TCU/accessories. |
| **Systems Impacted** | * HLM Mobile app * HLM backend system * OSS |
| **Business Rules:** | NA |
| **Threshold** | **Reminders**   * On the day of the service event created (calendar reminder) |
| **Security considerations** | **Refer Section 2.6 for security consideration** |
| **Definition of done** | * User should be able to select a dealer from dealer list and book for boat service * User should be able to set reminder in their mobile about service appointment * User gets a reminder based on the threshold set |

* + - 1. Schedule Service (TCU/Accessories)

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| Release | **Future Backlog** |
| [**Use case**](#M10) **ID** | **M.1.5** |
| **Actors:** | * Boat Owner/User, Backend OSS (Online schedule service) |
| **Preconditions:** | * User launches HLM App and successfully logs in * User has provision the TCU and enrolled his boat. |
| **Post conditions:** | * User finds Honda recommended dealers for Outboard motor, close to preferred locations * User schedules service request with selected dealer * User sets a reminder on the device calendar |
| **Normal Flow** | 1. Registered user of Marine app gets monthly health report for the outboard motor 2. User wants to Schedule Service for TCU/accessories (non-outboard motor)   **Find Dealer**   1. Start HLM App on the mobile device. 2. Sign in to the HLM app 3. Tap on "MyBoat" from the menu at the bottom of the screen    1. Tap on “Service TCU/accessories" Tab    2. User selects the TCU/accessory and clicks “Find Dealer”    3. HLM app gets a list of dealers from Honda backend for the selected accessory    4. If backend returns a list of dealers, brings up a map with dealers marked    5. User can select preferred dealer from the list.    6. If Dealer has OSS, open OSS Website in a browser window on the app    7. User schedules service (either calling directly to dealer or through OSS website if dealer have one.    8. OSS application acknowledges the service appointment through email.    9. User sets his device calendar for scheduled service (step 3)    10. If in step 4, user does not find any dealer, user finds a dealer manually    11. If in step 6 user does not find OSS, user manually sets the reminder as in “Service Reminder” section. 4. Service Reminder (Optional) – User Initiated Action 5. Tap on “Service Reminder” under My boat 6. The “Service Reminder” prompts user to enter a description of the kind of service he is looking for and the dealer name 7. If he has a confirmed date, he sets the device calendar, else he only sets a reminder 8. User can record a note if required in a text field provided 9. User clicks to save the reminder setting 10. HLM shows up the message “Service reminder is set” 11. HLM app shows up service reminder notification in the notification tab along with dealer details |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * No Connectivity: If internet connectivity is lost during the workflow, the device shows message “No internet connection. Try again later” * No response from Backend system : When user select “Find a dealer”, if the backend system cannot be reached or there is no response, the HLM shows up a message “Sorry, could not connect to Honda backend system”. * Dealer location address does not exist: If user selects a dealer whose location cannot be shown on the map, HLM app shows up a message “This address has not been verified” |
| **Frequency of Use:** | * Only when user finds the need for a scheduling service for TCU/accessories. |
| **Systems Impacted** | * HLM Mobile app * HLM backend system * OSS |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Threshold** | **Reminders**   * On the day of the service event created (calendar reminder) |
| **Security considerations** | **Refer Section 2.6 for security consideration** |
| **Definition of done** | * User should be able to select a dealer from dealer list and book for TCU and related accessories service. * User should be able to set reminder in their mobile about service appointment * User gets a reminder based on the threshold set |

* + - 1. PGN Code (MIL, Maintenance Minder)

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| Release | **Release 1.0** |
| [**Use case**](#M10) **ID** | **M.1.6** |
| **Actors:** | * Boat Owner/User, HLM backend system |
| **Preconditions:** | * User is registered to HLM * There is Internet connectivity * PGN code description table is available (both proprietary and non-proprietary) |
| **Post conditions:** | * User gets the correct PGN code Description along with error notification, date and time of occurrence * User shall navigate to Schedule Service page to get the list of dealer list |
| **Normal Flow:** | 1. A master list of all PGN codes along with description is maintained in backend system 2. When any of the boat health parameter goes beyond threshold then device sends out error in form of PGN code 3. This PGN code is translated to predefined user readable text message from the master list 4. PGN’s shall be identified with a criticality 5. Based on the PGN alert, user shall navigate to Schedule Service feature to request dealer for service. |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * **No Connectivity:** If internet connectivity is lost during the workflow, the device may not show the notification. * **PGN Code description not available:** the app displays the code in place of description |
| **Frequency of Use:** | * Only when error occurs |
| **Systems Impacted** | * HLM Mobile app * HLM backend system * Honda backend |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Threshold** | Criticality of the PGN’s shall be identified, which shall be High, Medium and Low. |
| **Security Considerations** | **Refer Section 2.6 for security consideration** |
| **Definition of done** | * PGN code are translated into user understandable descriptions and displayed |

* + - 1. Messaging/Notification

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| Release | **Release 1.0** |
| [**Use case**](#M10) **ID** | M.1.7 |
| **Actors:** | * User, HLM Mobile App, HLM Backend services, Honda backend services, Notification Service |
| **Preconditions:** | * User downloads the Honda Link Marine (HLM) app * User registers to use the HLM app * User agrees / opt-in to use the app features * User has an active subscription * User launches HLM app & logs in successfully |
| **Post conditions:** | * User gets SMS/Push notification/Email reminders and notifications * User gets specified notification as per matrix sheet based on the subscription chosen |
| **Normal Flow:** | 1. All notification messages shall be displayed under notification tab in mobile app.  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **Category** | **Description** | | **Communication Channels** | | | | | |  | **Feature Description** | **Notification Type** | **Mobile App Inbox** | **Push Notification** | **Email** | **SMS** | **Device Calendar Reminder** | |  | | **Boat Engine/ Health** | Schedule Service | App Inbox, Device Calendar Reminder | O | X | X | X | O |  | | Understanding PGN Code (MIL, Maintenance Minder) | App Inbox, Notification | O | O | X | X | X |  | | Monthly Report (Email) | Email | X | X | O | X | X |  | | Weather alerts | App Inbox | O | X | X | X | X |  | | Launch & Storage Requests | Device Calendar Reminder | X | X | X | X | O |  | | Calendar Reminder for upcoming services & Events | Device Calendar Reminder | X | X | X | X | O |  | | **Geofence** | Monitor Geofence | App Inbox, Notification, SMS | O | O | X | O | X |  | | **Speed Alert** | Alerts & Notification | App Inbox, Notification, SMS | O | O | X | O | X |  | | **Trip Planner** | Plan a Trip | App Inbox | O | X | X | X | X |  | | On Board Checks | Device Calendar Reminder | X | X | X | X | O |  | | Weather Report | App Inbox, Notification | O | O | X | X | X |  | | **Security** | On Boat Content Theft | App Inbox, Notification, Email, SMS | O | O | O | O | X |  | | Stolen Boat Locator | App Inbox, Notification | O | O | X | X | X |  | | **Subscription** | Free Trial - Enroll & Subscribe | App Inbox, Notification | O | O | O | X | X |  | | New - Enroll & Subscribe | Email | X | X | O | X | X |  | | **Profile** | Add/Delete Boat | App Inbox, Notification, SMS | O | O | X | O | X |  | | Swap TCU | App Inbox, Notification, SMS | O | O | X | O | X |  | | **Privacy** | Terms & Condition | Notification | X | O | X | X | X |  | | Opt-in & Opt-Out | Notification, SMS | O | X | X | O | X |  | |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * Problem in internet connection: If user does not have the internet connectivity in the mobile application throw the error message to enable the internet connection. * TCU fail to send the data: If TCU fail to send the data to cloud the notification will not be shown with the correct accuracy. * Cloud fail to communicate with Notification service: Problem occurred while cloud communicating with notification engine to send the notification. * Notification Engine Error: Problem occurred in the backend notification engine; the notification will not be received in the proper timeframe. |
| **Frequency of Use:** | * As and when notification triggers |
| **Systems Impacted** | * HLM mobile app * HLM backend system |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Threshold** | **Threshold:**   * Reports: Triggered once in a month. Generated and published on the 5th of every month * Reminders: 1 month before service date. Repeat 4 times * Alerts: Popup instantly. (Ex: speed alerts/ geofence alerts) |
| **Security considerations** | **Refer Section 2.6 for security consideration** |
| **Definition of Done:** | * User is notified the count of notification on the notification badge in the menu. * Notification descriptions shall be in user readable form. * Notification detail screen upon tapping a selected notification. * Weather notification brings up a detailed weather report both at origin and destination. * Maintenance alert brings up details along with troubleshooting tips |

* + - 1. Weather alerts

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| Release | **Release 3.0** |
| [**Use case**](#M10) **ID** | M.1.8 |
| **Actors:** | * Boat owner/User, HLM App, HLM backend, Weather API |
| **Preconditions:** | * User downloads the Honda Link Marine (HLM) app * User registers to use the HLM app * User agrees/ opt in to use the app features * User enrols his boat(s) & has active subscription * User launches HLM app & logs in successfully |
| **Post conditions:** | * User should be able to see the weather report for current and daily basis. * User can plan the trip based on the weather condition * User can take necessary action based on the weather condition while boating. |
| **Normal Flow:** | 1. User launches the app and login successfully 2. Navigate to Landing screen 3. Current weather information shown on the landing screen with weather icon 4. On tap of the weather information, navigates to detailed weather report page 5. Detailed weather report page displays the detailed weather report based on the category (current & daily and forecast for 5 days) |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * Problem in internet connection: If user does not have the internet connectivity in the mobile application throw the error message to enable the internet connection. * Error retrieving the weather data: Problem occurred retrieving the weather data from the third-party weather provider, app shows icon to refresh the data. |
| **Frequency of Use:** | * Every time app opens and successful login |
| **Systems Impacted:** | * HLM Mobile app, HLM backend |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Threshold** | NA |
| **Security Considerations** | **Refer Section 2.6 for security consideration** |
| **Definition of Done:** | * User should see the current weather in the landing screen * Upon tapping of weather icon in screen, user should be able to see the weather report (current and daily) |

Alternate Flow(s) – Weather

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| **ID#** | **Use case name** | **Use case description** |
| **Weather-01** | Weather report | Weather does not display in the app; user can tap on the refresh button to get the latest weather report. |

* + - 1. Launch & Storage Requests

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| **Release** | **Release 3.0** |
| [**Use case**](#M10) **ID** | **M.1.9** |
| **Actors:** | * Boat Owner/User, HLM backend system. |
| **Preconditions:** | * User is registered to HLM * There is Internet connectivity |
| **Post conditions:** | * User can set reminder for Launch and Storage requests |
| **Normal Flow:** | 1. User can set storage and launch reminders on the app through the “My boat” menu option. User taps on “My boat” and taps on Reminders. 2. The screen lists previous Launch and storage reminders if any 3. User taps on the “+” icon on the top right corner of the to create a new reminder 4. User types a title for the reminder 5. Device calendar pops up 6. User selects the date and by when he wants to be reminded (no of days before the date) 7. User can choose to repeat the reminder X number of times 8. User can select a sound for the reminder 9. User saves the reminder 10. The device calendar is set 11. HLM back end is updated 12. Calendar reminders are shown as described in “Calendar reminders for services and events” |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * No Connectivity: If internet connectivity is lost during the workflow, the device may not show the notification. |
| **Frequency of Use:** | * Only when user finds the need for a service scheduling. |
| **Systems Impacted** | * Mobile app, HLM backend system |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Threshold** | **Reminders**   * 1 month before service date * Repeat 4 times |
| **Security Considerations** | **Refer Section 2.6 for security consideration** |
| **Definition of done** | * User gets reminders on this device calendar 1 month before the scheduled date and repeats once a week. |

* + - 1. Calendar reminders for upcoming services and events

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| Release | **Release 3.0** |
| [**Use case**](#M10) **ID** | **M.1.10** |
| **Actors:** | * Boat Owner/User, HLM backend system |
| **Preconditions:** | * User is registered to HLM * User has opted for boat data upload * There is Internet connectivity * Devices on the boat are provisioned * The cloud IoT platform is streaming the data |
| **Post conditions:** | * User gets health report monthly * User finds a dealer * User schedules service request with selected dealer * User sets a reminder on the device calendar |
| **Normal Flow:** | **Configuring reminders**   1. User can configure reminders for his convenience 2. User taps on any of the reminders option on “My Boat” screen 3. User gets a list of reminders that are already created 4. User chooses the reminder in the list to configure 5. User shall be given an option to notify X days prior to the event date 6. User can choose to have repeat notifications for critical events if required 7. User may choose to switch off notifications too   **Reminders**   1. If the user has set Storage reminder on the device app, the reminder brings up an alert popup up X days before the set date as per reminder configuration. 2. If user has set Launch reminders on the device app, the reminder brings up an alert popup up X days before the set date as per reminder configuration. 3. If user has set a Service reminder on the device calendar (See Schedule Service use case), the reminder brings up an alert popup up X days before the set date as per the configuration 4. User can delete a reminder at any point of time 5. User can edit the reminder, change the note or the date and save |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * No Connectivity: If internet connectivity is lost during the workflow, the device may not show the notification. |
| **Frequency of Use:** | * When user wants to set reminders for service schedule or launch/ storage request schedule. |
| **Systems Impacted** | * HLM Mobile app, HLM backend system |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Threshold** | **Reminders:**   * 1 month before service date. Repeats 4 times * In case there is no date set for the reminder, repeat once every week until the reminder is deleted |
| **Security Considerations** | **Refer Section 2.6 for security consideration** |
| **Definition of done** | User should have an option to create the calendar reminder for scheduled services and events. |

* + 1. Boat Readiness (M.2.0)

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| **ID** | **Use Case** | **Feature** | **Use case description** |
| M.2.0 | Boat Readiness | [Boat Health Report](#M21) | As a boat owner, I would like to see the Health status (Engine Oil, Engine temperature, Bilge Pump, battery life, Fuel Levels and other sensor) of my boat, so that I can confirm boat readiness for my next trip |
|  |
| [Winterization](#M22) | As a boat Owner, I would like to get a static checklist of things to do, so that I can do winterization of my boat myself or take dealership support. |
| [Location Sharing](#M23) | As a boat owner, I would like to receive my boat location information via App, so that I can share it with family & Friends |

* + - 1. Boat Health Report

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| Release | **Release 1.0** |
| **Use case ID** | **M.2.1** |
| **Actors:** | Boat Owner/user, HLM App, HLM backend, Weather API, |
| **Preconditions:** | * User is registered to HLM * There is Internet connectivity * User has a valid subscription and has opted-in for data upload   + There is an upcoming trip |
| **Post conditions:** | * User can see the Boat Health Status on screen   + User Owner can Run a report |
| **Normal Flow:** | 1. The User evokes/ refreshes the Mobile Device / Application. 2. The Mobile App landing page is displayed. 3. User clicks on profile icon to open profile page 4. User scrolls down to "Manage Boat" section 5. Selects the boat as the current boat 6. User taps on "My boat" menu option 7. On the My Boat page, user shall be provided with the below information    1. Current status of the boat.    2. A Link/ button to Run Report 8. User shall tap the “Run Report” to generate a comprehensive Boat Health Report. 9. The health report shall be displayed to the user with the following parameters and their status. The status indicates the boat health    1. Engine Oil pressure    2. Engine temperature,    3. Bilge Pump    4. Battery life    5. Fuel Levels    6. Fault code (PGN Code)    7. Other sensors 10. User taps on Run Report 11. User gets monthly health report as email attachment to his registered emailed. Report covers all the parameters mentioned in item 9 through email |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * + **No Connectivity**: If internet connectivity is lost during the workflow, the device shows message “No internet connection. Try again later”   + **No response from Backend system** : When user select “My boat”, if the backend system does not show the health parameter values, the HLM shows up a message “Sorry, could not connect to Honda backend system”. |
| **Frequency of Use:** | * When a planned trip is few weeks away |
| **Systems Impacted:** | * HLM Mobile app * HLM backend system |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Threshold** | Threshold for each of the boat health parameters need to be defined  Boat readiness needs to be defined |
| **Security Considerations** | * Refer section 2.6 of the document for security consideration. |
| **Definition of Done:** | * User gets to view the Health report on the ‘My Boat” screen * User can “Run Report” to view status of weather parameters * User receives health report every month |

* + - 1. Winterization

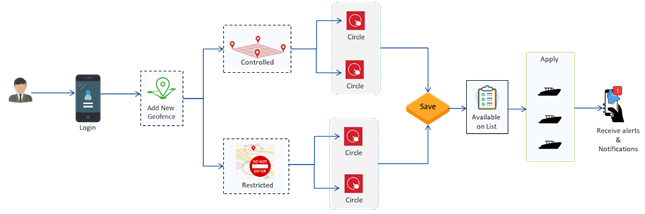
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| **Release** | **Release 3.0** |
| **Use case ID** | **M.2.2** |
| **Actors:** | Boat Owner/user, HLM App, HLM backend |
| **Preconditions:** | * User is registered to HLM * There is Internet connectivity * User has a valid subscription and has opted-in for data upload   + User has an upcoming trip |
| **Post conditions:** | * User gets a winterization static checklist |
| **Normal Flow:** | 1. The User evokes/ refreshes the Mobile Device / Application 2. The Mobile App landing page is displayed 3. Winterization Checklist    1. User taps on "My boat" menu option    2. User scrolls down to “Support” section    3. Clicks on “Winterization Check List” under manuals    4. User can view the static checklist for Winterization process    5. Fill and submit the checklist. |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * + **No Connectivity**: If internet connectivity is lost during the workflow, the device shows message “No internet connection. Try again later”   + **No response from Backend system** : When user select “My boat”, if the backend system does not show the health parameter values, the HLM shows up a message “Sorry, could not connect to Honda backend system”.   + **Winterization checklist not available**: The list does not show the static checklist. No error messages. |
| **Frequency of Use:** | * + When a planned trip is few weeks away |
| **Systems Impacted** | * + HLM Mobile app   + HLM Database |
| **Business Rules:** | NA |
| **Threshold** | NA |
| **Security Considerations** | **Refer Section 2.6 for security consideration** |
| **Definition of Done:** | * + If Winterization static checklist is available and listed, user can view the checklist |

* + - 1. Location Sharing

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| **Release** | **Release 3.0** |
| **Use case ID** | **M.2.3** |
| **Actors:** | Boat Owner/user, HLM mobile App, HLM backend, Social media APIs |
| **Preconditions:** | * User is registered to HLM * There is Internet connectivity * User has a valid subscription and has opted-in for data upload   + There is an upcoming trip |
| **Post conditions:** | * User can share Location |
| **Normal Flow:** | 1. User taps on “My boat” menu option 2. On “My Boat” screen, user double clicks on boat name 3. Boat is visible on a map view 4. User clicks on share icon to share his location to his social media friends |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * + **No Connectivity**: If internet connectivity is lost during the workflow, the device shows message “No internet connection. Try again later”   + **No response from Backend system**: When user select “My boat”, if the backend system does not show the health parameter values, the HLM shows up a message “Sorry, could not connect to Honda backend system”. |
| **Frequency of Use:** | * When a planned trip is few weeks away |
| **Systems Impacted:** | * + HLM Mobile app   + HLM backend |
| **Business Rules:** | NA |
| **Threshold:** |  |
| **Security Considerations:** | **Refer Section 2.6 for security consideration** |
| **Definition of Done:** | * + The location is shared social media account |

* + 1. Geofence (M.3.0)

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| **ID** | **Use Case** | **Feature** | **Use case description** |
| M.3.0 | Geofence | Monitor Geofence | As an app user, I would like to know if my boat is sailing away from the Marina/off route or entering or nearing restricted water zones |
| [Create & Geofence](#M31) | As an app user: I should be able to create (name, alert(s)) one or more controlled geofence & apply them on my boat(s) to control boat movement within the selected geofence. |
| As an app user: I should be able to create (name, alert(s)) one or more restricted geofence & apply them on my boat(s) to restrict boat movement into the selected geofence. |
| [Update & Geofence](#M32) | As an app user: I should be able to edit (name, alert(s)) the controlled geofence & view the applied controlled geofence to monitor & control boat movement within the selected geofence. |
| As an app user: I should be able to edit (name, alert(s)) the restricted geofence & view the applied controlled geofence to monitor & control boat movement into the selected geofence. |
| [Delete Geofence(s)](#M33) | As an app user: I should be able to delete (name, alert(s)) the controlled geofence created by me |
| As an app user: I should be able to delete (name, alert(s)) the restricted geofence created by me |



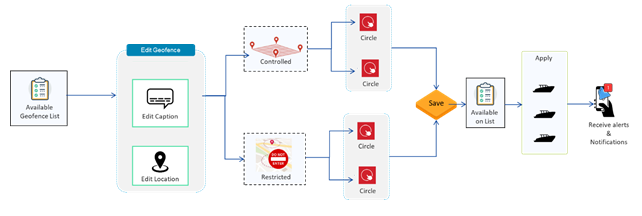
* + - 1. Monitor Geofence

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| **Release** | **Release 1.0** |
| [**Use case**](#F60) **ID** | **M.3.4** |
| **Actors:** | Boat club owner / Fleet owner, HLM Backend services, TCU Services, Cloud Platform Services, HIDAS |
| **Preconditions:** | * App user downloads the Honda Link Marine (HLM) app * App user registers to use the HLM app * App user agrees/ opt-in to use the app features * App user enrolls his boat(s) & has active subscription * App user has geofence entries set for a boat. |
| **Post conditions:** | * User should be able to receive alert when a boat is leaving dock, when it is coming back to dock, when it goes off track or getting into restricted water zones |
| **Normal Flow:** | * user can apply & monitor the geofence on his boat * User can view the created geofence in the app. * Based on the set geofence user shall receive alert when a boat is moving away from marina or coming towards marina, when it is sailing/boating off route, when it goes off track or getting into restricted water zones * App should also show the geofence on the map vs current position of the boat. |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * Overlapping geofence – if user creates overlapping geofence can create conflict alerts |
| **Frequency of Use:** | * Applied during a trip to monitor the geofence alerts |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Systems Impacted:** | * HLM APP * HLM backend service |
| **Threshold:** | Alerts & Notifications: Immediate |
| **Security Considerations:** | **Refer Section 2.6 for security consideration** |
| **Definition of Done:** | **User to be able to**   * Login Successful * apply & monitor the geofence on his boat * User should be able to receive off-track & off-route based alerts |

* + - 1. Create Geofence

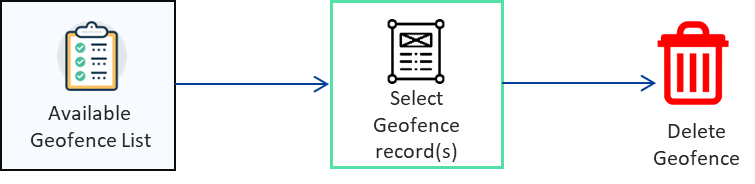
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| **Release** | **Release 1.0** |
| [**Use case**](#M30) **ID** | **M.3.1** |
| **Actors:** | App User, HLM Mobile App, HLM Backend services, TCU Services, Cloud Platform Services, HIDAS |
| **Preconditions:** | * App user downloads the Honda Link Marine (HLM) app * App user registers to use the HLM app * App user agrees / opt-in to use the app features * App user has an active subscription * App user launches HLM app & logs in successfully |
| **Post conditions:** | * App user should be able to apply the created geofence for the boat * App user should be able to view the geofence on the map view |
| **Normal Flow:** | 1. App user creates new circular geofence.  * User shall select a boat from the profile. * App user taps on the Add geofence feature * App user can select the either Controlled (Keep In) or Restricted (Keep Out) as geofence category * App user can plot the circular geofence * App user by choosing the circle view, can only control the width of the geofence by choosing the desired radius of the circle * App user can provide name for the created geofence. * App user can save the created Geofence.  1. App user creates new polygonal geofence.  * User shall select a boat from the profile. * App user taps on the Add geofence feature. * App user can select the either Controlled (Keep In) or Restricted (Keep Out) as geofence category. * App user can plot the polygonal geofence by connecting multiple points. * App user by choosing the view, can only control the size of the geofence by choosing the desired number of the coordinates in the perimeter of polygon. * App user can provide name for the created geofence. * App user can save the created Geofence.   User can create only predefined number of geofences including circular and polygonal at a time. User will be notified when the maximum limit is exceeded. |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * **Overlapping geofence** – if user creates overlapping geofence can create conflict alerts * **Lost connectivity** – App user will not be able to monitor or receive the live geofence updates. If the network connectivity is lost on the mobile device, then app user shall receive network disconnect message. * **Maximum geofence count limit exceeded** – if user creates more than predefined number of geofence then app user shall view a suitable warning message. |
| **Frequency of Use:** | * Need based (when a geofence need to be created) |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Systems Impacted:** | * HLM Mobile app * HLM Backend database |
| **Threshold** | NA |
| **Security Considerations:** | **Refer Section 2.6 for security consideration** |
| **Definition of Done:** | **App user to be able to**   * Login Successful * Create new geofence – Controlled & Restricted * Select Circular to create geofence type * Save geofence * Apply, monitor & receive alerts |

* + - 1. Update & Monitor Geofence



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| **Release** | **Release 1.0** |
| [**Use case**](#M30) **ID** | **M.3.2** |
| **Actors:** | App User, HLM Mobile App, HLM Backend services, TCU Services, Cloud Platform Services, HIDAS |
| **Preconditions:** | * App user downloads the Honda Link Marine (HLM) app * App user registers to use the HLM app * App user agrees/ opt in to use the app features * App user enrolls his boat(s) & has active subscription * App user launches HLM app & logs in successfully * App has existing geofence entries that can be edited |
| **Post conditions:** | * App user should be able to edit & update the existing geofence * App user should be able to view the geofence on the map view |
| **Normal Flow:** | 1. User can update the geofence by:  * App user taps on the exiting geofence entry to edit * App user can change the geofence to - Controlled (Keep In) or Restricted (Keep Out) * If app user chooses to edit circle view, he can control the width of the geofence by choosing the desired radius for circular geofence. * If app user chooses to edit polygonal view, he can control the size of the geofence by choosing the desired number of the coordinates in the perimeter of polygon. * App user can change the name for the updated geofence. * App user can save the updated Geofence |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * **Overlapping geofence** – if user creates overlapping geofence can create conflict alerts * **Lost connectivity** – App user will not be able to monitor or receive the live geofence updates. If the network connectivity is lost on the mobile device, then app user shall receive network disconnect message |
| **Frequency of Use:** | * Need Basis (When a geofence need to be Updated) |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Systems Impacted** | * HLM Mobile app * HLM Backend database |
| **Threshold** | NA |
| **Security Considerations:** | **Refer Section 2.6 for security consideration** |
| **Definition of Done:** | **App user to be able to**   * Login Successful * Update existing geofence – Controlled & Restricted * Should be able to change geofence category (Controlled, Restricted) and geofence type (Circular) * Save updated geofence * Apply, monitor & receive alerts |

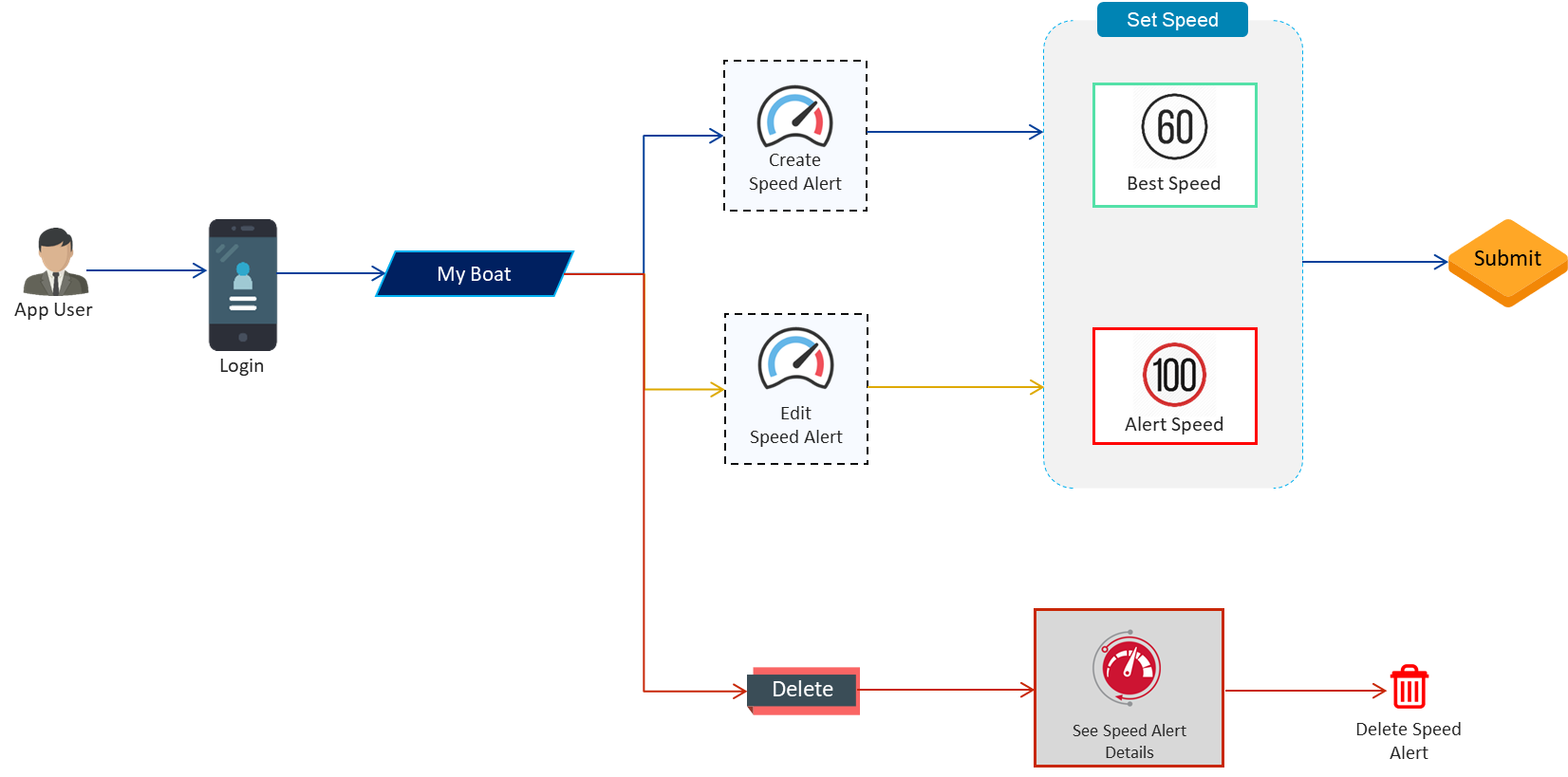
* + - 1. Delete Geofence



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| **Release** | **Release 1.0** |
| [**Use case**](#M30) **ID** | **M.3.3** |
| **Actors:** | App User, HLM Mobile App, HLM Backend services, HIDAS |
| **Preconditions:** | * App user downloads the Honda Link Marine (HLM) app * App user registers to use the HLM app * App user agrees/ opt-in to use the app features * App user enrolls his boat(s) & has active subscription * App user launches HLM app & logs in successfully * App has existing geofence entries that can be deleted |
| **Post conditions:** | * App user should be able to delete the existing geofence record * App user can delete multiple records at a time * Deleted records shall be permanently removed from the HLM system |
| **Normal Flow:** | 1. **Delete Geofence Flow:**  * App user selects the exiting geofence entry to delete (Multiple entries can be selected). * App user taps on delete option. * Mobile app pops out confirmation screen for user to reconfirm the delete operation with below popup message  1. There is an active trip in progress for the Geofence being deleted, is it ok? 2. All alerts and notifications will be deleted when the Geofence is deleted, is it ok?  * App user confirms to delete, and app removes the complete geofencing record from system. |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * **Deleting an ongoing trip Geofence entry** – App allows deletion of an ongoing or active geofence applied on a trip. App user would lose all the online alerts & notification associated with the deleted geofence record. * **Lost connectivity during deletion** – App user will be shown delete success message only after the geofence records are completely removed from the system. If there is a connection lost the deletion process the App will not receive any confirmation on the deletion, however when the app refreshes the deleted record will be either removed (if the backend system had already deleted) or shall be present to be deleted again. |
| **Frequency of Use:** | * Need Basis (when a geofence records need to be deleted) |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Systems Impacted:** | * HLM Mobile app * HLM Backend database |
| **Threshold** | NA |
| **Security Considerations:** | **Refer Section 2.6 for security consideration** |
| **Threshold** |  |
| **Definition of Done:** | **App user to be able to**   * Login * Delete existing geofence record(s) * Verify that the records are no more in the system |

* + 1. Speed Alerts (M.4.0)

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| **ID** | **Use Case** | **Feature** | **Use case description** |
| M.4.0 | Speed Alerts | [Alerts & Notification](#M43) | As an app user, I should receive alert when my boat(s) goes beyond the defined speed limit, so that I can get a notification and SMS. Also, I shall be able to view the alert in the landing page and My Boat screen. |
| [Create Speed Alert & Monitor](#M41) | As an app user, I should be able to create controlled speed alerts for my boat(s) to monitor my boat speed |
| [Update Speed Alert & Monitor](#M42) | As an app user, I should be able to Update controlled speed alerts for my boat(s) to monitor my boat speed |
| [Delete/Disable speed Alert](#M43) | As an app user, I should be able to delete controlled speed alerts associated with my boat(s) |
| [Speed Trend Indicator](#M45) | As an app user, I would like to view my boats speed (nautical/hr., or miles/hr.) -VS- time (minutes, hours, or days) |



* + - 1. Speed Alerts & Notification

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| **Release** | **Release 1.0** |
| [**Use case**](#M40) **ID** | **M.4.4** |
| **Actors:** | App User, HLM Mobile App, HLM Backend services, TCU Services, Cloud Platform Services, HIDAS |
| **Preconditions:** | * App user downloads the Honda Link Marine (HLM) app * App user registers to use the HLM app * App user agrees / opt-in to use the app features * App user has an active subscription * App user launches HLM app & logs in successfully |
| **Post conditions:** | * App user should get notifications via App & SMS when the boat speed cross the set threshold speed. |
| **Normal Flow:** | * App user has logged into App * App user has created the speed alert * App user will receive speed alerts on the App or via SMS when the boat speed crosses the set threshold speed. * App user can view Speed Alert on the landing screen and “My Boat” screen. |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * Speed alert responsiveness – As the boat speed data needs to be fetched from the HLM backend services, the responsiveness of the alerts highly depends connectivity. Any break in the connectivity would delay the alerts been shown on the app. |
| **Frequency of Use:** | * Whenever boat is in moving state |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Systems Impacted** | * HLM Mobile app * HLM Backend database * HLM Backend Services |
| **Threshold** | * NA |
| **Security Considerations** | **Refer Section 2.6 for security consideration** |
| **Definition of Done:** | **App user to be able to**   * Login successfully * Receive notification |

* + - 1. Create & Monitor Speed Alerts

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| **Release** | **Release 1.0** |
| [**Use case**](#M40) **ID** | **M.4.1** |
| **Actors:** | App User, HLM Mobile App, HLM Backend services, TCU Services, Cloud Platform Services, HIDAS |
| **Preconditions:** | * App user downloads the Honda Link Marine (HLM) app * App user registers to use the HLM app * App user agrees / opt-in to use the app features * App user has an active subscription * App user launches HLM app & logs in successfully. |
| **Post conditions:** | * App user should be able to apply the created speed alerts * App user should be able to receive speed alerts if the boat speed crosses the configured threshold speed * App user should be able to view the speed alert list |
| **Normal Flow:** | 1. User should be able to create speed alert  * User selects a boat from his profile. * App user taps on the Add speed alert feature of a boat. * App user can set over speed threshold value * App user can save the created speed alert |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * Speed alert responsiveness – As the speed data needs to be fetched from the HLM backend services, the responsiveness of the alerts highly depends connectivity. Any break in the connectivity would delay the alerts been shown on the app. |
| **Frequency of Use:** | * Need based (when speed alerts need to be created) |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Systems Impacted** | * HLM Mobile app * HLM Backend database * HLM Backend Services * Platform Services * TCU |
| **Threshold** | NA |
| **Security concerns** | NA |
| **Definition of Done:** | **App user to be able to**   * Login successfully * Create speed alerts * Apply, monitor & receive speed alerts |

* + - 1. Update Speed Alert & Monitor

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| **Release** | **Release 1.0** |
| [**Use case**](#M40) **ID** | **M.4.2** |
| **Actors:** | App User, HLM Mobile App, HLM Backend services, TCU Services, Cloud Platform Services, HIDAS |
| **Preconditions:** | * App user downloads the Honda Link Marine (HLM) app * App user registers to use the HLM app * App user agrees / opt-in to use the app features * App user has an active subscription * App user launches HLM app & logs in successfully * For Edit/Update speed alert functionality, there should be speed alerts already created. |
| **Post conditions:** | * App user should be able to apply the updated speed alerts * App user should be able to receive speed alerts if the boat speed crosses the configured threshold speed * App user should be able to view the speed alert * App user should be able to edit the speed alerts and apply the new configuration |
| **Normal Flow:** | 1. User should be able to Update speed alert  * App user taps on the existing speed alert to edit the entry * App user can change over speed threshold value * App user can save the updated speed alert |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * Speed alert responsiveness – As the speed data needs to be fetched from the HLM backend services, the responsiveness of the alerts highly depends connectivity. Any break in the connectivity would delay the alerts been shown on the app. |
| **Frequency of Use:** | * Need based (when speed alerts need to be updated) |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Systems Impacted** | * HLM Mobile app * HLM Backend database * HLM Backend Services * Platform Services * TCU |
| **Threshold** | NA |
| **Security consideration** | NA |
| **Definition of Done:** | **App user to be able to**   * Login successfully * Ability to update speed alerts * Apply, monitor & receive speed alerts |

* + - 1. Disable/Delete Speed Alerts

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| **Release** | **Release 1.0** |
| [**Use case**](#M40) **ID** | **M.4.3** |
| **Actors:** | App User, HLM Mobile App, HLM Backend services, HIDAS |
| **Preconditions:** | * App user downloads the Honda Link Marine (HLM) app * App user registers to use the HLM app * App user agrees / opt-in to use the app features * App user has an active subscription * App user launches HLM app & logs in successfully * For Delete/Disable speed alert functionality, there should be speed alerts already created. |
| **Post conditions:** | * App user should be able to view the speed alert list * App user should be able to delete the speed alert(s) |
| **Normal Flow:** | 1. User should be able to disable speed alert.  * App user selects the exiting speed alert entry to disable. * App user taps on disable option. |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * Lost connectivity during deletion – The old state shall be retained |
| **Frequency of Use:** | * Need based (when speed alerts need to be deleted) |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Systems Impacted** | * HLM Mobile app * HLM Backend database * HLM Backend Services |
| **Definition of Done:** | **App user to be able to**   * Login successfully * Delete speed alerts * Apply, monitor & receive speed alerts |

* + - 1. Speed Trend Indicator

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| **Release** | **Release 3.0** |
| [**Use case**](#M40) **ID** | **M.4.5** |
| **Actors:** | App User, HLM Mobile App, HLM Backend services, TCU Services, Cloud Platform Services, HIDAS |
| **Preconditions:** | * App user downloads the Honda Link Marine (HLM) app * App user registers to use the HLM app * App user agrees / opt-in to use the app features * App user has an active subscription * App user launches HLM app & logs in successfully |
| **Post conditions:** | * App user should be able to view live boat speed data (nautical/hr., or miles/hr.) -VS- time (minutes, hours, or days) * App user should be able to generate & analyze the boat speed trend chart to show the driving pattern. |
| **Normal Flow:** | 1. Live Speed:  * App user has logged into App * App user has created the speed alert * App user will be able to view the live boat speed data on the app * App user can also view the speed data trend (nautical/hr., or miles/hr.) -VS- time (minutes, hours, or days) * App user to choose the time frame to generate the speed trend chart. * App user should be able to analyze the boat speed trend to show the driving pattern. |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * Live Boat Speed data accuracy – As the boat speed data needs to be fetched from the HLM backend services, the responsiveness of the alerts highly depends connectivity. Any break in the connectivity would result in inaccurate speed data been displayed on boat. |
| **Frequency of Use:** | * When the boat is moving during active boating period. |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Systems Impacted** | * HLM Mobile app * HLM Backend database * HLM Backend Services |
| **Threshold** | NA |
| **Security Considerations** | **Refer Section 2.6 for security consideration** |
| **Definition of Done:** | **App user to be able to**   * Login successfully * View boat’s speed data on the app screen live * Ability to generate the speed trend chart (nautical/hr., or miles/hr.) -VS- time (minutes, hours, or days). |

* + 1. Trip Planner (M.5.0)

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| **ID** | **Use Case** | **Feature** | **Use case description** |
| M.5.0 | Trip Planner | [Explore Trips](#M51) | As a boat owner, I would like to view a **statistic of my trips** with the following details   * Number of trips * Total miles covered * Number of locations visited. |
| As a boat owner, I would like to view the **upcoming trips**, count down counter indicating the number of days to start the trip, Name of the trip, Current |
| As a boat owner, I would like to view a list of all trips with the most **popular** ones on the top. Select a trip to view the details of the trip. Should be able to mark a trip which I may like as my favorite. |
| As a boat owner, I would like to view a list of my **favorite trips** with the most recent ones on the top. Select a trip from the list and view its details. Reset my choice of favorite trips. |
| As a boat owner, I would like to view a list of my **past trips** made till date. Select a trip from the list and view its details. |
| As a boat owner, I would like to look for a trip using a keyword search. Select a trip from the list and view its details. |
| As a boat owner, I should be able to view the following details of a selected trip.   * + Itinerary   + Pictures   + Route Map   + Nearest Marina     - View the nearest Marina, a map showing the direction from my current location. I should have an option which enables me to visit Marina’s website. I should have an option to make a call to the Marina to figure out more details.   + Hotels close by.   + Log of the trip   + Fuel consumed   + Motor used in the boat during the trip |
| [Plan a Trip](#M52) | As a boat owner, I would like to create a trip path by selecting any of the itineraries I may be interested in, give it a name and save it. |
| As a boat owner, I would like to view the Weather report based on the Route map. |
| As a boat owner, I would like to view Information on water depth (shallow, sanding) in the trip Route Map |
| As a boat owner, I would like to share my trip plan on social media |
| As a boat owner, I would like to Edit/ Delete/ Cancel my trip plan |
| [Share my trip](#M53) | As a boat owner, I would like to share my trip plan on social media |
| As a boat owner, I would like to share my experiences (photos, videos, tips) specific to location. |
| [Route Map](#M54) | As a boat Owner, I should be able to view Route Map for my trip - origin, destination, and departure & return date & time |
| [On Board Checks](#M55) | As a boat Owner, I should be able to perform On Board Checks and see a checklist of things while going on a trip. |
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| [Trip Tracker](#M56) | As a Boat Owner, I should be able to Track my boat on the trip route map. |
| [Fuel Prices & Filling Stations](#M57) | As a Boat Owner, I should be able to view filling stations with fuel prices close by my current location and select a filling station. |
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| [Weather Report](#M58) |  |
| As a boat owner, I would like to know the weather details at my trip plan locations. |
| As a Boat Owner, I should be able to see weather report based on my destination location on the Route Map. |
| [Water depth](#M58) | As a boat owner, I should be able to view Information on water depth (shallow, sanding) in the trip Route Map. |
| [Docking-location of nearest dock](#M59) | As a boat owner, I should be able to view nearest Docks or Slips along my trip route map. I should be able to call the nearest marina for renting a Dock or a slip. |
| [Engine Health](#M511) | As a boat owner, I would like to know if my engine health condition will be good for the planned trip so that I alter my trip plan or place a service request to dealership. |
| [Battery life](#M513) | As a boat owner, I would like to know if my Battery life will be good for the planned trip so that I alter my trip plan or place a service request to dealership. |
| [Edit a Trip](#M514) | As a Boat Owner, I should be able to edit my trips any time before beginning the trip |
| [Delete a Trip](#M515) | As a Boat Owner, I should be able to delete my trip at any point of time |

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* + - 1. Explore Trips

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| **Release** | **Future Backlog** |
| [**Use case**](#M50) **ID** | **M.5.1** |
| **Actors:** | Boat Owner, HLM Backend services |
| **Preconditions:** | * User is a registered user of HLM App * User enrolled a boat * User has a valid subscription |
| **Post conditions:** | * The user shall have the information of previous trips * The user shall have the information of upcoming trip * The user should have gotten all the information to plan a trip. |
| **Normal Flow:** | 1. User shall launch the HLM app and successfully logs in. 2. The Mobile App landing page shall be displayed. 3. User shall tap the Explore option available on the bottom menu bar. 4. User shall see the statistics of user’s previous trips.    1. The user can drilldown by taping the dashboard.    2. The drilldown shall display monthly trend of the trips taken in the past 1 year.    3. Another options TBD 5. User shall see the notification for upcoming trip.    1. User shall click the View All option to view all the user’s upcoming trips. 6. User shall be enabled with the following option to explore the trips    1. List of popular trips    2. List of user’s favorite trips    3. List of user’s previous trips    4. Search a trip 7. User shall swipe through the screen to browse the list of trips and can a select a trip by tapping it. 8. User shall have an option to plan a new trip. |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * HLM App Crash   The application does not respond to user actions on the screen for a long-time indicating application crash   * Network Connectivity   During any workflow, if the internet connectivity is lost on the mobile device.  The device shows message “No internet connection. Try again.”. The use case ends.   * GPS location data from Satellite is unavailable   Boat location cannot be traced  The device shows message “GPS not available”  The use case ends |
| **Frequency of Use:** | * When the Boat Owner schedules a trip. * Frequency could be more when Boat Owner is interested in planning trip |
| **Business Rules:** | NA |
| **Systems Impacted** | * HLM Mobile app * HLM Backend system |
| **Threshold** | NA |
| **Security Considerations** | **Refer Section 2.6 for security consideration** |
| **Definition of Done:** | * User shall be able to view popular, user’s favorite and previous trips. * User can Search for a trip using keywords. * User shall be able to mark/ unmark favorite trips * User shall be able to share previous trips |

* + - 1. Trip Details

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| **Release** | **Release 1.0** |
| [**Use case**](#M50) **ID** | **M.5.2** |
| **Actors:** | Boat Owner, HLM Backend services |
| **Preconditions:** | * User is a registered user of HLM App * User enrolled a boat * User has a valid subscription * User has planned a trip |
| **Post conditions:** | * The user shall have the information of a selected trip * The user shall be able to plan a trip reusing the itinerary of the selected trip. |
| **Normal Flow:** | 1. User shall launch the HLM app and successfully logs in. 2. The Mobile App landing page shall be displayed. 3. User shall tap the Trip option available on the bottom menu bar. 4. User shall be enabled with the following option to explore the trips    1. List of user’s previous trips    2. Search a trip 5. User shall swipe through the screen to browse the list of trips. 6. User shall select a trip and see the below details of the trip.    1. Itinerary    2. Picture    3. Route Map    4. Nearest Marina   View the nearest Marina, a map showing the direction from my current location. I should have an option which enables me to visit Marina’s website. I should have an option to make a call to the Marina to figure out more details.   * 1. Log of the trip   2. Motor used in the boat during the trip |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * HLM App Crash   The application does not respond to user actions on the screen for a long-time indicating application crash   * Network Connectivity   During any workflow, if the internet connectivity is lost on the mobile device.  The device shows message “No internet connection. Try again.”. The use case ends.   * Trip Details are blank   Force close by restarting the app. Any unsaved data will be lost. Use case ends. |
| **Frequency of Use:** | * When the Boat Owner schedules a trip. * Frequency could be more when Boat Owner is interested in planning trip |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Systems Impacted** | HLM Mobile app  HLM Backend system |
| **Threshold:** | NA |
| **Security Considerations:** | **Refer Section 2.6 for security consideration** |
| **Definition of Done:** | * User shall be able view complete details of any selected trip. |

* + - 1. Plan a Trip

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| **Release** | **Release 1.0** |
| [**Use case**](#M50) **ID** | **M.5.3** |
| **Actors:** | Boat Owner, HLM Backend services |
| **Preconditions:** | * User is a registered user of HLM App * User enrolled a boat * User has a valid subscription |
| **Post conditions:** | * User shall be able to share the trip plan on social media. * User shall be able to edit, Delete or cancel a trip. |
| **Normal Flow:** | 1. User shall launch the HLM app and successfully logs in. 2. The Mobile App landing page shall be displayed. 3. User shall tap the Trip option available on the bottom menu bar. 4. Tap the Add New icon available from the Trip menu 5. User shall enter all the mandatory information of the trip such as Source, Destination, Trip Name and Departure Date & Time. 6. User shall save the trip. 7. User shall be able to share the trip once it is successfully created. 8. User shall be able view information on water depth (shallow, sanding) in the trip Route Map. 9. User shall have the ability to review the trip at later point of time. 10. After a trip is created, user shall have the options to Edit, Delete or Cancel a trip. |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * HLM App Crash   The application does not respond to user actions on the screen for a long-time indicating application crash. The use case ends.   * Maps on HLM App crash   The route maps on the app does not respond or appear to be hanged. HLM App should be refreshed. The use case ends.   * Network Connectivity   During any workflow, if the internet connectivity is lost on the mobile device. The device shows message “No internet connection. Try again.”. Any unsaved data shall be lost and cannot be recovered. The use case ends.   * Departure date & time   If user entered departure date & time is earlier than current date & time, then user shall be displayed with suitable warning message. |
| **Frequency of Use:** | * Frequency would be more when the weather is suitable for boating. |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Systems Impacted** | * HLM Mobile app * HLM Backend system |
| **Threshold:** | NA |
| **Security Considerations** | **Refer Section 2.6 for security consideration** |
| **Definition of Done:** | * User shall be able to explore the trips created. * User shall be able to share the trips * Edit, Delete or cancel trips. |

* + - 1. Share my Trip

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| **Release** | **Release 1.0** |
| [**Use case**](#M50) **ID** | **M.5.4** |
| **Actors:** | Boat Owner, HLM Backend services |
| **Preconditions:** | * User is a registered user of HLM App * User enrolled a boat * User has a valid subscription * User has planned a trip |
| **Post conditions:** | * The trip shall be posted the Social media |
| **Normal Flow:** | 1. User shall launch the HLM app and successfully logs in. 2. The Mobile App landing page shall be displayed. 3. User shall navigate to Trip menu 4. Select any trip 5. User shall be navigated to a page with trip details 6. User shall be able to share the trip on social media |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * HLM App Crash   The application does not respond to user actions on the screen for a long-time indicating application crash. The use case ends.   * Network Connectivity   During any workflow, if the internet connectivity is lost on the mobile device. The device shows message “No internet connection. Try again.”. Any unsaved data shall be lost and cannot be recovered. The use case ends. |
| **Frequency of Use:** | * When the Boat Owner plans or completes a trip. * Frequency shall increase in the seasons suitable for the boating. |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Systems Impacted** | * HLM Mobile app * HLM Backend system |
| **Threshold** | NA |
| **Security Considerations:** | **Refer Section 2.6 for security consideration** |
| **Definition of Done:** | * User shall be able to share the trip on social media successfully. |

* + - 1. Route Mapping

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| **Release** | **Release 1.0** |
| [**Use case**](#M50) **ID** | **M.5.5** |
| **Actors:** | Boat Owner, HLM Backend services |
| **Preconditions:** | * User is a registered user of HLM App * User enrolled a boat * User has a valid subscription * User has planned a trip |
| **Post conditions:** | * The user shall see the route of the trip on the map |
| **Normal Flow:** | 1. User shall launch the HLM app and successfully logs in. 2. The Mobile App landing page shall be displayed. 3. User shall navigate to Trip menu 4. Select any trip 5. User shall be navigated to a page with trip details 6. User shall be able to see route map for my trip - Source, destination, and departure time/dates, trip forecast |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * HLM App Crash   The application does not respond to user actions on the screen for a long-time indicating application crash. The use case ends.   * Notifications get congested on the app.   Force close the app. The use case ends   * Maps on HLM app crash   The route maps on the app does not respond or appear to be hanged. App should be refreshed. The use case ends.   * Network Connectivity   During any workflow, if the internet connectivity is lost on the mobile device. The device shows message “No internet connection. Try again.”. Any unsaved data shall be lost and cannot be recovered. The use case ends. |
| **Frequency of Use:** | * When the Boat Owner prepares to plan a trip. * Frequency shall increase in the seasons suitable for the boating. |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Systems Impacted** | * HLM Mobile app * HLM Backend system |
| **Threshold** | NA |
| **Security Considerations:** | **Refer Section 2.6 for security consideration** |
| **Definition of Done:** | * User shall be able to see the route map of the trip. |

* + - 1. Onboard checks

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| **Release** | **Release 3.0** |
| [**Use case**](#M50) **ID** | **M.5.6** |
| **Actors:** | Boat Owner, HLM Backend services |
| **Preconditions:** | * User is a registered user of HLM App * User enrolled a boat * User has a valid subscription |
| **Post conditions:** | * The user shall understand the readiness of the trip. * The user shall be aware of the location in the Route Map from the tips received. |
| **Normal Flow:** | 1. User shall launch the HLM app and successfully logs in. 2. The Mobile App landing page shall be displayed. 3. User shall review the Boat/ Engine health report 4. User shall review the Weather report. 5. User shall navigate to Trip menu 6. Tap the upcoming trip. 7. User shall be navigated to a page with trip details and select onboard static checklist. 8. User shall complete the Onboard checks by checking or unchecking the checklist of line items and submits the checklist. |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * HLM App Crash   The application does not respond to user actions on the screen for a long-time indicating application crash. The use case ends.   * Notifications get congested on the app.   Force close the app. The use case ends   * Network Connectivity   During any workflow, if the internet connectivity is lost on the mobile device. The device shows message “No internet connection. Try again.”. Any unsaved data shall be lost and cannot be recovered. The use case ends. |
| **Frequency of Use:** | * When the Boat Owner prepares to plan a trip. * Frequency shall increase in the seasons suitable for the boating. |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Systems Impacted** | * HLM Mobile app * HLM Backend system |
| **Threshold** | NA |
| **Security Considerations:** | **Refer Section 2.6 for security consideration** |
| **Definition of Done:** | * Get a checklist of items for Onboard of checks. * User shall be able to assess the readiness for the trip. |

* + - 1. Trip Tracker

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| **Release** | **Future Backlog** |
| [**Use case**](#M50) **ID** | **M.5.7** |
| **Actors:** | Boat Owner, HLM Backend services |
| **Preconditions:** | * User is a registered user of HLM App * User enrolled a boat * User has a valid subscription * User already planned for a trip and began a trip. * The user shall get the required notification or reminders for the ongoing trip. |
| **Post conditions:** | * The user shall be able to track the boat during the trip |
| **Normal Flow:** | 1. User shall launch the HLM app and successfully logs in. 2. The Mobile App landing page shall be displayed. 3. User shall navigate to Trip menu 4. Tap the current ongoing trip. 5. User shall be navigated to a page with trip details 6. User shall track the boat on the Route Map which displays the following information    1. Origin, destination, departure and return date & time    2. Depth of water on the route. |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * HLM App Crash   The application does not respond to user actions on the screen for a long-time indicating application crash. The use case ends.   * Maps on HLM app crash   The route maps on the app does not respond or appear to be hanged. App should be refreshed. The use case ends.   * Network Connectivity   During any workflow, if the internet connectivity is lost on the mobile device. The device shows message “No internet connection. Try again.”. Any unsaved data or files shall be lost and cannot be recovered. The use case ends. |
| **Frequency of Use:** | * When the Boat Owner plans a trip. * Frequency could be more when Boat Owner is on a planned trip |
| **Business Rules:** | NA |
| **Systems Impacted** | HLM Mobile app  HLM Backend system |
| **Threshold** | NA |
| **Security Considerations:** | **Refer Section 2.6 for security consideration** |
| **Definition of Done:** | * User shall be able to track the boat on the route map of the trip. * User’s trip tracker is updated as per the trip outcome. |

* + - 1. Fuel Prices & Filling Stations

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| **Release** | **Release 3.0** |
| [**Use case**](#M50) **ID** | **M.5.8** |
| **Actors:** | Boat Owner, HLM Backend services |
| **Preconditions:** | * User is a registered user of HLM App * User enrolled a boat * User has a valid subscription * User already planned for a trip and on a trip. * The user shall be able to track the boat. * The user shall get the required notification or reminders for the ongoing trip. |
| **Post conditions:** | * The user shall be able to find the nearest filling stations with best fuel prices |
| **Normal Flow:** | 1. User shall launch the HLM app and successfully logs in. 2. The Mobile App landing page shall be displayed. 3. User shall navigate to Trip menu 4. Tap the current ongoing trip. 5. User shall be navigated to a page with trip details 6. User shall receive notification for filling stations with fuel prices 7. User can search for nearby fuel station for current location by default or can specify location explicitly. 8. User can a select a fuel station from the search result. |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * HLM App Crash   The application does not respond to user actions on the screen for a long-time indicating application crash. The use case ends.   * Notifications get congested on the app.   Force close by restarting the app. The use case ends   * Network Connectivity   During any workflow if the internet connectivity is lost on the mobile device. The device shows message “No internet connection. Try again.”. Any unsaved data or files shall be lost and cannot be recovered. The use case ends. |
| **Frequency of Use:** | * When the Boat Owner plans a trip. * Frequency could be more when Boat Owner is on a planned trip |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Systems Impacted** | * HLM Mobile app * HLM Backend system * System to get fuel stations |
| **Threshold:** | NA |
| **Security Considerations:** | **Refer Section 2.6 for security consideration** |
| **Definition of Done:** | * User shall be able to view the nearest filling stations. |

* + - 1. Weather Report

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| **Release** | **Release 1.0** |
| [**Use case**](#M50) **ID** | **M.5.9** |
| **Actors:** | Boat Owner, HLM Backend services |
| **Preconditions:** | * User is a registered user of HLM App * User enrolled a boat * User has a valid subscription * User already planned for a trip and on a trip. |
| **Post conditions:** | * The user shall be able to understand the weather conditions of the locations in the trip plan. |
| **Normal Flow:** | 1. User shall launch the HLM app and successfully logs in. 2. The Mobile App landing page shall be displayed. 3. User shall navigate to Trip menu 4. Select a trip 5. User shall be navigated to a page with trip details 6. User shall receive the notification related to the weather around the current location 7. User shall know the weather details (destination) by tapping the weather notification. |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * HLM App Crash   The application does not respond to user actions on the screen for a long-time indicating application crash. The use case ends.   * Notifications are blank.   Force close by restarting the app. The use case ends   * Network Connectivity   During any workflow, if the internet connectivity is lost on the mobile device. The device shows message “No internet connection. Try again.”. Any unsaved data or files shall be lost and cannot be recovered. The use case ends. |
| **Frequency of Use:** | * When the Boat Owner plans a trip. * Frequency could be more when Boat Owner is on a planned trip |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Systems Impacted** | HLM Mobile app  HLM Backend system |
| **Threshold:** | NA |
| **Security Considerations:** | **Refer Section 2.6 for security consideration** |
| **Definition of Done:** | * User shall be able to receive alerts related to weather. * User shall be able to view the weather reports related to the locations of the trip. |

* + - 1. Water Depth

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| **Release** | **Release 3.0** |
| [**Use case**](#M50) **ID** | **M.5.10** |
| **Actors:** | Boat Owner, HLM Backend services |
| **Preconditions:** | * User is a registered user of HLM App * User enrolled a boat * User has a valid subscription * User has planned a trip |
| **Post conditions:** | * The user shall be able monitor the water depth on the Route Map. |
| **Normal Flow:** | 1. User shall launch the HLM app and successfully logs in. 2. The Mobile App landing page shall be displayed. 3. User shall tap the Trip menu option available on the bottom menu bar. 4. Select a trip. 5. User shall be able view information of water depth received from the Boat depth sensor (If supported only ) |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * HLM App Crash   The application does not respond to user actions on the screen for a long-time indicating application crash. The use case ends.   * Maps on HLM App crash   The route maps on the app does not respond or appear to be hanged. HLM App should be refreshed. The use case ends.   * Network Connectivity   During any workflow, if the internet connectivity is lost on the mobile device. The device shows message “No internet connection. Try again.”. Any unsaved data shall be lost and cannot be recovered. The use case ends. |
| **Frequency of Use:** | * Frequency would be more when the weather is suitable for boating. |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Systems Impacted** | * HLM Mobile app * HLM Backend system |
| **Threshold:** | NA |
| **Security Considerations:** | **Refer Section 2.6 for security consideration** |
| **Definition of Done:** | * User shall be able to get information on water depth (shallow, sanding) in the trip route map |

* + - 1. Docking-location of nearest dock

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| **Release** | **Release 3.0** |
| [**Use case**](#M50) **ID** | **M.5.11** |
| **Actors:** | Boat Owner, HLM Backend services |
| **Preconditions:** | * User is a registered user of HLM App * User enrolled a boat * User has a valid subscription * User already planned for a trip and began a trip. * The user shall be able to track the boat. * The user shall get the required notification or reminders for the ongoing trip. |
| **Post conditions:** | * The user shall be able to view the nearest Docks along the trip map. |
| **Normal Flow:** | 1. User shall launch the HLM app and successfully logs in. 2. The Mobile App landing page shall be displayed. 3. User shall navigate to Trip menu 4. Tap the current ongoing trip. 5. User shall be navigated to a page with trip details 6. User shall view docking stations in the nearest Marina on the map 7. User shall have the option to call the Marina. |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * HLM App Crash   The application does not respond to user actions on the screen for a long-time indicating application crash. The use case ends.   * Notifications get congested on the app.   Force close by restarting the app. The use case ends   * Maps on HLM app crash   The route maps on the app does not respond or appear to be hanged. App should be refreshed. The use case ends.   * Network Connectivity   During any workflow, if the internet connectivity is lost on the mobile device. The device shows message “No internet connection. Try again.”. Any unsaved data or files shall be lost and cannot be recovered. The use case ends. |
| **Frequency of Use:** | * When the Boat Owner plans a trip. * Frequency could be more when Boat Owner is on a planned trip |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Systems Impacted** | * HLM Mobile app * HLM Backend system |
| **Threshold:** | NA |
| **Security Considerations:** | **Refer Section 2.6 for security consideration** |
| **Definition of Done:** | * User shall view docking stations in the nearest Marina on the map and call Marina for further details. |

* + - 1. Engine Health

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| **Release** | **Release 3.0** |
| [**Use case**](#M50) **ID** | **M.5.12** |
| **Actors:** | Boat Owner, HLM Backend services |
| **Preconditions:** | * User is a registered user of HLM App * User enrolled a boat * User has a valid subscription * User already planned for a trip. |
| **Post conditions:** | * The user shall be able to understand the Engine conditions of the boat |
| **Normal Flow:** | 1. User shall launch the HLM app and successfully logs in. 2. The Mobile App landing page shall be displayed. 3. User shall navigate to My Boat 4. User shall be navigated to boat and engine health report 5. User shall be able to view the engine parameters. |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * HLM App Crash   The application does not respond to user actions on the screen for a long-time indicating application crash. The use case ends.   * Report sections are blank.   Force close by restarting the app. The use case ends   * Network Connectivity   During any workflow, if the internet connectivity is lost on the mobile device. The device shows message “No internet connection. Try again.”. Any unsaved data or files shall be lost and cannot be recovered. The use case ends. |
| **Frequency of Use:** | * When the Boat Owner plans a trip. * Frequency could be more when Boat Owner is on a planned trip |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Systems Impacted** | * HLM Mobile app * HLM Backend system |
| **Threshold:** | NA |
| **Security Considerations:** | **Refer Section 2.6 for security consideration** |
| **Definition of Done:** | * User shall be able to view the status of Engine on the report. |

* + - 1. Battery Life

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| **Release** | **Release 3.0** |
| [**Use case**](#M50) **ID** | **M.5.13** |
| **Actors:** | Boat Owner, HLM Backend services |
| **Preconditions:** | * User is a registered user of HLM App * User enrolled a boat * User has a valid subscription * User already planned for a trip. |
| **Post conditions:** | * The user shall be able to understand the Battery conditions of the boat |
| **Normal Flow:** | 1. User shall launch the HLM app and successfully logs in. 2. The Mobile App landing page shall be displayed. 3. User shall navigate to My Boat 4. User shall be navigated to boat and engine health report 5. User shall scroll to the Electrical Section of the report and locate Status of the Battery 6. User shall be able to understand if battery life is good to go on a trip. |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * HLM App Crash   The application does not respond to user actions on the screen for a long-time indicating application crash. The use case ends.   * Battery life fields are blank.   Force close by restarting the app. The use case ends   * Network Connectivity   During any workflow, if the internet connectivity is lost on the mobile device. The device shows message “No internet connection. Try again.”. Any unsaved data or files shall be lost and cannot be recovered. The use case ends. |
| **Frequency of Use:** | * When the Boat Owner plans a trip. * Frequency could be more when Boat Owner is on a planned trip |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Systems Impacted** | * HLM Mobile app * HLM Backend system |
| **Threshold:** | NA |
| **Security Considerations:** | **Refer Section 2.6 for security consideration** |
| **Definition of Done:** | * User shall be able to view the Engine Health Report. * User shall be able to view the status of Engine on the report. |

* + - 1. Edit a Trip

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| **Release** | **Release 3.0** |
| [**Use case**](#M50) **ID** | **M.5.14** |
| **Actors:** | Boat Owner, HLM Backend services |
| **Preconditions:** | * User is a registered user of HLM App * User enrolled a boat * User has a valid subscription * User already planned for a trip. |
| **Post conditions:** | * User shall be able to share the trip plan on social media. * User shall be able to edit, Delete or cancel a trip. |
| **Normal Flow:** | 1. User shall launch the HLM app and successfully logs in. 2. The Mobile App landing page shall be displayed. 3. User shall tap the Trip menu option available on the bottom menu bar. 4. User shall Search for the Trip using the search option available in the Trip menu view. 5. User shall swipe through the screen to browse the search result with list of trips. 6. User shall select a trip and see the below details of the trip.    1. Itinerary    2. Picture    3. Nearest Marina   View the nearest Marina, a map showing the direction from my current location. I should have an option which enables me to visit Marina’s website. I should have an option to make a call to the Marina to figure out more details.   * 1. Log of the trip   2. Motor used in the boat during the trip  1. User shall edit trip details and save the changes. |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * HLM App Crash   The application does not respond to user actions on the screen for a long-time indicating application crash. The use case ends.   * Maps on HLM app crash   The route maps on the app does not respond or appear to be hanged. App should be refreshed. The use case ends.   * Network Connectivity   During any workflow, if the internet connectivity is lost on the mobile device. The device shows message “No internet connection. Try again.”. Any unsaved data or files shall be lost and cannot be recovered. The use case ends. |
| **Frequency of Use:** | * When the Boat Owner plans a trip. |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Systems Impacted** | * HLM Mobile app * HLM Backend system |
| **Threshold:** | NA |
| **Security Considerations:** | **Refer Section 2.6 for security consideration** |
| **Definition of Done:** | * User shall be able to explore the trips created. * User shall be able to share the trips * Edit, Delete or cancel trips. |

* + - 1. Delete a Trip

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| **Release** | **Release 3.0** |
| [**Use case**](#M50) **ID** | **M.5.15** |
| **Actors:** | Boat Owner, HLM Backend services |
| **Preconditions:** | * User is a registered user of HLM App * User enrolled a boat * User has a valid subscription * User already planned for a trip. |
| **Post conditions:** | * The user shall be able to create a new trip. |
| **Normal Flow:** | 1. User shall launch the HLM app and successfully logs in. 2. The Mobile App landing page shall be displayed. 3. User shall tap the Trip menu option available on the bottom menu bar. 4. User shall Search for the Trip using the search option available in the Trip menu view. 5. User shall swipe through the screen to browse the search result with list of trips. 6. User shall select a trip and see the details of the trip. 7. User shall have the option to delete the trip. 8. User shall tap the delete option. 9. The app shall ask for reconfirmation. 10. After the user acknowledges with “Yes” the details of the trip are permanently deleted from HLM App. |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * HLM App Crash   The application does not respond to user actions on the screen for a long-time indicating application crash. The use case ends.   * Network Connectivity   During any workflow, if the internet connectivity is lost on the mobile device. The device shows message “No internet connection. Try again.”. Any unsaved data or files shall be lost and cannot be recovered. The use case ends. |
| **Frequency of Use:** | * When the Boat Owner plans a trip. |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Systems Impacted** | * HLM Mobile app * HLM Backend system |
| **Threshold:** | NA |
| **Security Considerations:** | **Refer Section 2.6 for security consideration** |
| **Definition of Done:** | * User shall be able to Delete trips. |

* + 1. Security (M.6.0)

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| **ID** | **Use Case** | **Feature** | **Use case description** |
| M.6.0 | Security | [On Boat Content Theft](#M71) | As a User, I would like to receive an alert/ notification (SMS, EMAIL, push notification) in case there is unauthorized entry into boat while it is locked, so that my boat cabin contents are safe |
|  |  | [Stolen Boat Locator](#M72) | As a User, I should be able to report my stolen boat status to the system. |
|  |  | [Find my Boat](#M73) | As a User, I should be able to locate and track my boat. |

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* + - 1. On boat content theft

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| **Release** | **Release 1.0** |
| [**Use case**](#M70) **ID** | **M.6.1** |
| **Actors:** | Boat owner/User, HLM Mobile App, HLM Backend services |
| **Preconditions:** | * + User downloads the Honda Link Marine (HLM) app   + User registers to use the HLM app   + User agrees / opt-in to use the app features   + User has an active subscription   + User launches HLM app & logs in successfully |
| **Post conditions:** | * + User should get notification if door opened outside of boating hour |
| **Normal Flow:** | * + User specifies the boat operating timings in Preferences page for the door sensor to be activated. During the set timings, if there is any unauthorized entry through the boat cabinet door an alert will be notified to user.   + User can also activate or deactivate the door sensor notification in settings page based on the preference to get the door status notification. |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * + **Error sending the door sensor value**: Problem occurred while sending the door sensor value to cloud will fail the use case and show the error message to user and asks to retry.   + **Problem in internet connection**: If user does not have the internet connectivity in the mobile application throw the error message to enable the internet connection. |
| **Frequency of Use:** | * Need based |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Systems Impacted** | * HLM Mobile app * HLM backend services |
| **Threshold:** | NA |
| **Security Considerations:** | **Refer Section 2.6 for security consideration** |
| **Definition of Done:** | * User should get door sensor notification based on the configured value. |

* + - 1. Stolen boat

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| **Release** | **Release 1.0** |
| [**Use case**](#M70) **ID** | **M.6.2** |
| **Actors:** | Boat owner/User, HLM Mobile App, HLM Backend services |
| **Preconditions:** | * + User downloads the Honda Link Marine (HLM) app   + User registers to use the HLM app   + User agrees / opt-in to use the app features   + User has an active subscription   + User launches HLM app & logs in successfully |
| **Post conditions:** | * + User stop getting the notification when report theft |
| **Normal Flow:** | * User opens the app and tap on report stolen boat button in case of missing boat * System gets the current location of the boat and store it in backend database * Disables the boat location notification and related features to user |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * + **Error sending location details**: Problem occurred while sending the location details will show an error message to user and asks to retry.   + **Problem in internet connection**: If user does not have the internet connectivity in the mobile application throw the error message to enable the internet connection. |
| **Frequency of Use:** | * Need based |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Systems Impacted** | * HLM Mobile app * HLM backend services |
| **Threshold:** | NA |
| **Security Considerations:** | **Refer Section 2.6 for security consideration** |
| **Definition of Done:** | * Disable location tracking feature to the User |

* + - 1. Find my Boat

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| **Release** | **Release 3.0** |
| [**Use case**](#M70) **ID** | **M.6.3** |
| **Actors:** | Boat owner/User, HLM Mobile App, HLM Backend services |
| **Preconditions:** | * + User downloads the Honda Link Marine (HLM) app   + User registers to use the HLM app   + User agrees / opt-in to use the app features   + User has an active subscription   + User launches HLM app & logs in successfully |
| **Post conditions:** | * + User should find the current location of the boat |
| **Normal Flow:** | * Boat Owner selects find my boat to locate his boat. * Located boat is highlighted on the Geo map |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * + **Error sending location details**: Problem occurred while sending the location details will show an error message to user and asks to retry.   + **Problem in internet connection**: If user does not have the internet connectivity in the mobile application throw the error message to enable the internet connection. |
| **Frequency of Use:** | * Need based |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Systems Impacted** | * HLM Mobile app * HLM backend services |
| **Definition of Done:** | * Identify location of the boat. |

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| **Security Considerations:** | **Refer Section 2.6 for security consideration** |
| **Definition of Done:** | * User personal and boat data should be protected. |

* + 1. Registration (M.7.0)

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| **Id** | **Use Case** | **Feature** | **Use case description** |
| M.7.0 | Registration | [End User Registration](#M81) | As a Honda Marine Engine User (Equipped on boat), I would like to register on HLM App to create my user account and enroll my boat/engine to access various features available on my boat/engine |

* + - 1. End User Registration & Secured access

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| **Release** | **Release 1.0** |
| [**Use case**](#M80) **ID** | **M.7.1** |
| **Actors:** | * Boat owner/User, Backend HLM System, Honda backend system – “HIDAS”, |
| **Preconditions:** | * User has downloaded the HLM App * App User does not have a Honda ID & wants to create one |
| **Post conditions:** | * User will be successfully registered and gets a Honda Id that is further used to login to HLM App. |
| **Normal Flow:** | 1. User downloads HLM app on the mobile device from App store/Play store 2. User shall tap on the Honda Link Marine (HLM) App icon to open the app 3. After the splash screen the app shows up the Login page 4. User taps on the link “Register Now” at the bottom of the screen 5. App shall invoke the web view of “Honda Universal Registration” services for user to register with Honda. 6. User shall save to complete the registration process. 7. User can now launch the HLM App and login with the Honda ID and password that was created. 8. User shall complete the boat enrolment process. |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * User fails to get Activation email with URL   + **No Connectivity:** If internet connectivity is lost during the workflow, the device shows message “No internet connection. Try again later”   + No response from Universal registration services |
| **Frequency of Use:** | * Once per user only |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Systems Impacted** | * HLM Mobile app * HLM Backend system (Universal Registration Services) * Honda backend system (HIDAS) |
| **Threshold:** | NA |
| **Security Considerations:** | **Refer Section 2.6 for security consideration** |
| **Definition of Done:** | * Registered user can login and get access to the features of the app. |

* + 1. Subscription (M.8.0)

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| **ID** | **Use Case** | **Feature** | **Use case description** |
| M.980 | Subscription | [Free Trial - Enroll & Subscribe](#M91) | As a boat owner, I would like to have a free trial subscription for 2 years per boat |
| [New - Enroll & Subscribe](#M92) | As a boat owner, I would want to enroll my boat to my account on the HLM App and subscribe for the data & services so that the TCU on the boat is provisioned to get boat data based on the subscribed model |

* + - 1. Free Trial - Enrol & Subscribe

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| **Release** | **Release 1.0** |
| [**Use case**](#M90) **ID** | **M.8.1** |
| **Actors:** | App User/Boat owner, HLM Mobile App, HLM Backend services, Subscription Platform Services. |
| **Preconditions:** | * App user downloads the Honda Link Marine (HLM) app * App user registers to use the HLM app * App user agrees / opt-in to use the app features * App user launches HLM app & logs in successfully |
| **Post conditions:** | * App user should be able to enroll his boat(s) for free trial * App user should be able to choose & activate free trial subscriptions on his boat(s) * App user should be able to receive boat data from his boat |
| **Normal Flow:** | 1. Free Trial: Enroll & Subscribe Flow:  * App user launches the HLM Application * App user Logs in with his credentials. * App user tap on add boat option to add his boat(s) to get enrolled * App user adds his boat details to be enrolled * App user shall enter the unique PIN received and OTP for validation * If the entered PIN and OTP is validated successfully then customer ownership shall be validated by the back-office system   + After the customer ownership is validated, the ownership is marked as Verified.   + If customer ownership could not be verified, the ownership is marked as unverified.   + The device connectivity to cloud is established successfully * Free trial subscription package type is selected by default for first time users. * HLM backend service activates free trial subscription for 2 years on the TCU. * On successful activation user will gets access to Data & services through HLM App * App user also gets reminder notification one month before the subscription is ending. * If the user does not upgrade by end of free trial period, the app will be disabled and cannot be used till subscription is upgraded. |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * **Connectivity During Activation**: While activating the trial subscription there is a chance of the transaction failure as the activating process involves multiple systems like HLM App, HLM Backend services, Platform services. In case of any such failure user shall be notified about the failure and guided to retry it again. |
| **Frequency of Use:** | * Whenever a new boat needs to be enrolled & activate subscription |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Systems Impacted** | * Mobile app * Subscription platform service * HLM backend services |
| **Threshold:** | NA |
| **Security Considerations:** | * **Refer Section 2.6 for security consideration** |
| **Definition of Done:** | App user to be able to  • Login successfully  • Add boat and activate free Trial  • Use app with the free trial subscription |

* + - 1. New - Enrol & Subscribe

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| **Release** | **Future Backlog** |
| [**Use case**](#M90) **ID** | **M.8.2** |
| **Actors:** | App User/Boat owner, HLM Mobile App, HLM Backend services, Subscription Platform Services |
| **Preconditions:** | * App user downloads the Honda Link Marine (HLM) app * App user registers to use the HLM app * App user agrees / opt-in to use the app features * App user launches HLM app & logs in successfully |
| **Post conditions:** | * App user should be able to enroll his boat(s) * App user should be able to activate subscription on his boat(s) * App user should be able to receive boat data from his boat |
| **Normal Flow:** | 1. New: Enroll & Subscribe Flow:  * App user launches the HLM Application * App user Logs in with his credentials. * App user taps on My Boat menu in the side menu option * App user can view his boats which are already enrolled * App user taps on add boat option to enroll new boat * App user adds his boat details to be enrolled * App user shall enter the unique PIN received and OTP for validation * If the entered PIN and OTP is validated successfully then customer ownership shall be validated by the back-office system   + After the customer ownership is validated, the ownership is marked as Verified.   + If customer ownership could not be verified, the ownership is marked as unverified.   + The device connectivity to cloud is established successfully * App user can select subscription package and make payment * Payment gateway processes the payment and give response details to the HLM backend service to store the information. * On successful payment, user account gets activated and gets access to data & services through Honda Link Marine |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * **Connectivity During Activation**: While activating the trial subscription there is a chance of the transaction failure as the activating process involves multiple systems like HLM App, HLM Backend services, Platform services. In case of any such failure user shall be notified about the failure and guided to retry it again. |
| **Frequency of Use:** | * Whenever a new user needs to use the app and enroll the boat |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Systems Impacted** | * Mobile app * Subscription platform service * HLM backend services |
| **Threshold:** | NA |
| **Security Considerations:** | * **Refer Section 2.6 for security consideration** |
| **Definition of Done:** | App user to be able to   * Login successfully * Enroll new boat * Select & Activate Subscription * Make payment * App should get access to data & services through Honda Link Marine |

* + 1. Login (M.9.0)

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| **ID** | **Use Case** | **Feature** | **Use case description** |
| M.10.0 | Login | [Sign in Authentication](#M101) | As a registered user of HLM mobile app, I should be able to sign into the app with my credentials, so that I can access the features of the app |
| As registered user of HLM mobile app, I should be able to access the features of the app based on my subscription. |
| [Forgot Password](#M102) | As a registered app user, I would like to have an option to reset my forgotten password using the Universal Registration. |

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* + - 1. Sign in, Authentication & Authorization

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| **Release** | **Release 1.0** |
| [**Use case**](#M100) **ID** | **M.9.1** |
| **Actors:** | App User, HLM Mobile App, HLM Backend services, HIDAS |
| **Preconditions:** | * + User has downloaded the app (PE Marine Connectivity)   + User has registered as Honda marine customer (at the time of engine purchase or app registration flow)   + User has a valid subscription or a free trial subscription |
| **Post conditions:** | * + App user successfully logs in   + Navigate user to the landing screen based on the subscription selected. |
| **Normal Flow:** | 1. User Authentication.    1. Launch the application in the mobile device and login screen appears    2. User enters his Honda ID/Email address and password at the time of registration.    3. The entered Honda ID/Email address and password will validate through HIDAS API and provide the result.    4. On successful result, user navigates to the landing screen of the app.    5. If mobile device is **Touch ID** compatible, popup appears to enable the touch ID for next time login.    6. If mobile device is **Face ID** compatible, popup will have the option to enable the **Face ID** for next time login.    7. User will have an option to setup a 4-digit PIN as well for next time login.    8. Once user enable the fingerprint or PIN for login, users can login using either of these techniques from next time of the app use.    9. If user has the valid subscription, open landing page with the features enabled in the subscription plan.    10. Else, check if user did first time login to the app and eligible for free trial subscription.    11. If yes, update free trial subscription, and navigate to Landing screen.    12. If invalid credentials, user is returned to Login page with appropriate error message. 2. Authorization 3. Registered owner to a boat or Captain shall have access to his/her boat data. 4. Crew members for that boat are also authorized to view boat data. |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * + **Invalid Honda ID Error**: If a user enters invalid Honda ID and try to login, which will fail and show the error message as “user record not found”.   + **Invalid password Error**: If user enters valid Honda ID and invalid password, user gets appropriate error message and prompted to enter the correct password.   + **User Account Locked**: if user entered incorrect login credential 3 consecutive time, the account gets locked and error message shown to user. When account locked state user will not be able to login unless the account gets unlocked.   + **Press cancel button**: Tap on cancel button for login and forgot password option cancels the operation and will not achieve the use case goal.   + **Problem in internet connection**: If user does not have the internet connectivity in the mobile application throw the error message to enable the internet connection.   + **Error retrieving the data**: Problem occurred retrieving the data from Honda backend (HIDAS) use case ends and appropriate error message shown to retry or try after some time. |
| **Frequency of Use:** | Every time user uses the app |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Systems Impacted** | * + HLM Mobile   + HLM Backend System   + Honda Backed System (HIDAS) |
| **Threshold:** | NA |
| **Security Considerations:** | * **Refer Section 2.6 for security consideration** |
| **Definition of Done:** | * + User should be able to login successfully   + User should be able to reset their password successfully |

****Alternate Flow(s) - Login****

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| **ID#** | **Use case name** | **Use case description** |
| Login -01 | Boat Owner Login | * + Once user set the face ID, touch ID or 4-digit PIN, user can login using either of this option to the app from next time use. |

* + - 1. Authorization

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| **Release** | **Release 3.0** |
| [**Use case**](#M100) **ID** | **M.9.2** |
| **Actors:** | App User, HLM Mobile App, HLM Backend services, HIDAS |
| **Preconditions:** | * + User has downloaded the app (PE Marine Connectivity)   + User has registered as Honda marine customer (at the time of engine purchase or app registration flow)   + User has a valid subscription or a free trial subscription |
| **Post conditions:** | * + App user successfully logs in   + Navigate user to the landing screen based on the subscription selected. |
| **Normal Flow:** | 1. User Authentication.    1. Launch the application in the mobile device and login screen appears    2. User enters his Honda ID/Email address and password at the time of registration.    3. The entered Honda ID/Email address and password will validate through HIDAS API and provide the result.    4. On successful result, user navigates to the landing screen of the app.    5. If mobile device is **Touch ID** compatible, popup appears to enable the touch ID for next time login.    6. If mobile device is **Face ID** compatible, popup will have the option to enable the **Face ID** for next time login.    7. User will have an option to setup a 4-digit PIN as well for next time login.    8. Once user enable the fingerprint or PIN for login, users can login using either of these techniques from next time of the app use.    9. If user has the valid subscription, open landing page with the features enabled in the subscription plan.    10. Else, check if user did first time login to the app and eligible for free trial subscription.    11. If yes, update free trial subscription, and navigate to Landing screen.    12. If invalid credentials, user is returned to Login page with appropriate error message. 2. Authorization 3. Registered owner to a boat or Captain shall have access to his/her boat data. 4. Crew members for that boat are also authorized to view boat data. |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * + **Invalid Honda ID Error**: If a user enters invalid Honda ID and try to login, which will fail and show the error message as “user record not found”.   + **Invalid password Error**: If user enters valid Honda ID and invalid password, user gets appropriate error message and prompted to enter the correct password.   + **User Account Locked**: if user entered incorrect login credential 3 consecutive time, the account gets locked and error message shown to user. When account locked state user will not be able to login unless the account gets unlocked.   + **Press cancel button**: Tap on cancel button for login and forgot password option cancels the operation and will not achieve the use case goal.   + **Problem in internet connection**: If user does not have the internet connectivity in the mobile application throw the error message to enable the internet connection.   + **Error retrieving the data**: Problem occurred retrieving the data from Honda backend (HIDAS) use case ends and appropriate error message shown to retry or try after some time. |
| **Frequency of Use:** | Every time user uses the app |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Systems Impacted** | * + HLM Mobile   + HLM Backend System   + Honda Backed System (HIDAS) |
| **Threshold:** | NA |
| **Security Considerations:** | * **Refer Section 2.6 for security consideration** |
| **Definition of Done:** | * + User should be able to login successfully   + User should be able to reset their password successfully |

* + - 1. Forgot Password

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| **Release** | **Release 1.0** |
| [**Use Case**](#M100) **ID** | **M.9.3** |
| **Actors:** | App User, HLM Mobile App, UR |
| **Preconditions:** | * User has downloaded the app (PE Marine Connectivity) * User has registered as Honda marine customer (at the time of engine purchase or app registration flow) * User has a valid subscription or a free trial subscription |
| **Post conditions:** | * App user successfully reset the forgotten password using the UR page. |
| **Normal Flow:** | 1. User can reset password by tapping forgot password in login screen 2. Upon tapping the forgot password link user shall be redirected to Universal Registration web view. 3. User can get his password through the UR. |
| **Data Metrics:** | NA |
| **Exceptions:** | * + **Problem in internet connection**: If user does not have the internet connectivity in the mobile application throw the error message to enable the internet connection.   + **Error retrieving the data**: Problem occurred retrieving the data from Honda backend (HIDAS) use case ends and appropriate error message shown to retry or try after some time. |
| **Frequency of Use:** | Whenever user forgets the password. |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Systems Impacted** | * HLM Mobile * Honda Backed System (HIDAS) |
| **Threshold:** | NA |
| **Security Considerations:** | * **Refer Section 2.6 for security consideration** |
| **Definition of Done:** | * User should be able to reset their password successfully * User should be able to login to the app with new password from next time. |

* + 1. Profile (M.10.0)

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| **ID** | **Use Case** | **Feature** | **Use case description** |
| M.10.0 | Profile | [Edit/Complete my Profile](#M111) | As a boat owner, I should be able to view and edit my profile details, add my picture and set my preferences. |
| [Add/Delete Boat](#M112) | As a boat owner, I should be able to add/update/delete boat and TCU details. User should be able to add one or more boats in the system. |
| Captain crew model | As a captain of the boat (Boat owner), I should be able to accept/reject the Boat data access requests sent by my Crew. |
| Swap TCU | As a boat Owner, I should be able to swap TCU, provision the new TCU and receive data from new TCU, use the app without any problem. |

* + - 1. Edit/Complete my Profile

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| **Release** | **Release 1.0** |
| [**Use Case**](#M110) **ID** | **M.10.1** |
| **Actors:** | Boat owner/user, HLM Mobile App, Honda Backend system |
| **Preconditions:** | * + User downloads the Honda Link Marine (HLM) app   + User registers to use the HLM app   + User agrees / opt-in to use the app features   + User has an active subscription   + User launches HLM app & logs in successfully |
| **Post conditions:** | * + User manages Profile, Boats, Subscription, password and settings   + User can view Terms and Conditions |
| **Normal Flow:** | * Manage Profile  1. User navigates to manage profile screen by tapping on profile icon in the dashboard 2. User is displayed with profile information (Name, Honda ID, Email, dealer info etc.) 3. User taps on Edit to change the profile photo and save 4. User taps on Save button to update the profile photo to the backend database. 5. For first time profile creation: User shall be prompted for Email verification as a one-time process. 6. After successful verification, user be able to view profile details after logging into the app.  * Terms and Conditions  1. User can view the Terms and Conditions or Privacy and Policy by selecting the Terms and condition option 2. User can choose opt-in or opt-out for the T&C and privacy policy. 3. T&C, privacy policy content will be given by Honda legal team.  * Settings  1. User taps on settings to view App settings (such as unit settings) and Notification settings (enable and disable specific notifications) 2. User selects App settings view/edit the settings 3. User selects Notification settings to view/edit settings  * Manage Boats  1. User selects Boat name to manage boat information 2. User is displayed with Boat information 3. User taps on Edit to change the Boat details and save 4. User taps on Save button to update the Boat details to the backend database. 5. User selects Sensors to enable/disable Boat sensors (Security sensors, Electrical sensors – Battery sensor, Bilge sensor, Temperature sensor etc.) |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * + **Press cancel button:** Tap on cancel button for login and forgot password option cancels the operation and will not achieve the use case goal.   + **Problem in internet connection:** If user does not have the internet connectivity in the mobile application throw the error message to enable the internet connection.   + **Error retrieving the data:** Problem occurred retrieving the data from Honda backend system use case ends and appropriate error message shown to retry or try after some time. |
| **Frequency of Use:** | * Need basis (as and when user want to change the profile) |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Systems Impacted** | * HLM Mobile app * HLM Database * Honda backend system |
| **Threshold:** | NA |
| **Security Considerations:** | * **Refer Section 2.6 for security consideration** |
| **Definition of Done:** | * User should be able to change the profile information |

* + - 1. Add boat/Delete Boat

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| **Release** | **Release 1.0** |
| [**Use Case**](#M110) **ID** | **M.10.2** |
| **Actors:** | App User, HLM Mobile App, Honda Backend system |
| **Preconditions:** | * + App user downloads the Honda Link Marine (HLM) app   + App user registers to use the HLM app   + App user agrees / opt-in to use the app features   + App user has an active subscription   + App user launches HLM app & logs in successfully |
| **Post conditions:** | * + App user should be able to add and manage the boat details |
| **Normal Flow:** | 1. Boat Owner taps on Add a Boat menu in the app 2. User will be given option to enter the details like boat name, brand, model, HUL ID, Frame VIN, TCU details, sensor details, boat related document. 3. Upon tapping save button user entered Honda part details will be validated with the backend system and prompt user to verify the ownership. 4. Once ownership is verified, boat data will be added to the backend system. 5. For adding Boat data for the first time, user shall be provided with option to select and enroll to Connected package. 6. Boat owner shall be prompted with OTP verification on Registered email. 7. After successful verification, Boat Owner taps on Boat name to view/edit boat by providing required inputs. |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * + **Entering incorrect details:** If user enter incorrect details about boat or TCU, while ownership verification the details will be shown incorrect and user get the error message.   + **Press cancel button:** Tap on cancel button for login and forgot password option cancels the operation and will not achieve the use case goal.   + **Problem in internet connection:** If user does not have the internet connectivity in the mobile application throw the error message to enable the internet connection.   + **Error retrieving the data:** Problem occurred retrieving the data from Honda backend system regarding TCU and ownership details will cause use case to end and appropriate error message shown to retry or try after some time. |
| **Frequency of Use:** | Need basis (as and when user want to add or swap the TCU) |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Systems Impacted** | * HLM Mobile app * HLM Database * Honda backend system |
| **Definition of Done:** | * User should be able to add the new boat details * User should be able to swap the existing TCU with new TCU |

* + - 1. Captain crew model

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| **Release** | **Release 3.0** |
| [**Use Case**](#M110) **ID** | **M.10.3** |
| **Actors:** | App User (Captain/Crew), HLM Mobile App, Honda Backend system |
| **Preconditions:** | * + App user downloads the Honda Link Marine (HLM) app   + App user registers to use the HLM app   + App user agrees / opt-in to use the app features   + App user has an active subscription   + App user launches HLM app & logs in successfully |
| **Post conditions:** | * + Crew should be able to request access to Captain boat details.   + Captain shall accept/reject crew member requests.   + Post acceptance/rejection crew member shall be able to access/unable to access Captain boat data. |
| **Normal Flow:** | 1. Crew/App user shall login to his HLM app. 2. Crew shall send request for accessing Captain Boat data. 3. Boat owner/Captain shall accept the Crew member request. 4. On successful acceptance, crew shall be able to access Captain boat data. 5. Boat owner/Captain can reject the Crew member request. 6. In case of rejection, Crew member shall not be able to access Captain boat data. |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * + **Press cancel button:** Tap on cancel button before sending request cancels the operation and will not achieve the use case goal.   + **Problem in internet connection:** If user does not have the internet connectivity in the mobile application throw the error message to enable the internet connection.   + **Error retrieving the data:** Problem occurred retrieving the data from Honda backend system regarding TCU and ownership details will cause use case to end and appropriate error message shown to retry or try after some time. |
| **Frequency of Use:** | Need basis (as and when Crew want to access Captain boat data) |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Systems Impacted** | * HLM Mobile app * HLM Database * Honda backend system |
| **Definition of Done:** | * Crew should be able access Captain boat details * Captain may accept or reject Crew request for Boat data. |

* + - 1. Swap TCU

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| **Release** | **Release 1.0** |
| [**Use Case**](#M110) **ID** | **M.10.4** |
| **Actors:** | App User, HLM Mobile App, Honda Backend system |
| **Preconditions:** | * + App user downloads the Honda Link Marine (HLM) app   + App user registers to use the HLM app   + App user agrees / opt-in to use the app features   + App user has an active subscription   + App user launches HLM app & logs in successfully |
| **Post conditions:** | * + Boat owner should be able to swap TCU, provision the new TCU and receive data from new TCU, use the app without any problem. |
| **Normal Flow:** | 1. Boat owner taps on the Boat name in the Manage Boat page. 2. Changes the TCU information and completes the ownership verification to provision the new TCU details. 3. On successful verification, new TCU information will get updated for the app user. |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * + **Press cancel button:** Tap on cancel button before sending request cancels the operation and will not achieve the use case goal.   + **Problem in internet connection:** If user does not have the internet connectivity in the mobile application throw the error message to enable the internet connection.   + **Error retrieving the data:** Problem occurred retrieving the data from Honda backend system regarding TCU and ownership details will cause use case to end and appropriate error message shown to retry or try after some time. |
| **Frequency of Use:** | Need basis (as and when user want to swap the TCU) |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Systems Impacted** | * HLM Mobile app * HLM Database * Honda backend system |
| **Definition of Done:** | * User should be able to swap the existing TCU with new TCU |

* + 1. Landing Screen & Tips (M.11.0)

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| **ID** | **Use Case** | **Feature** | **Use case description** |
| M.11.0 | Landing page & Tips | [Usage Tips](#M121) & Current events | As a Boat Owner, I would like to watch videos that provide some tips or training on Boat riding, Boat maintenance, App usage etc. |
| As a boat Owner, I would like to get tips on marine practices/ training in form of Text/Image or even play a video |

* + - 1. Usage Tips & Current events

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| **Release** | **Release 3.0** |
| **[Use Case](#M120) ID** | **M.11.0** |
| **Actors:** | Boat owner/user, HLM app, CMS |
| **Preconditions:** | * User has registered for HLM App * User enrolled a boat * User has valid subscription |
| **Post conditions:** | * User views Profile info, Current weather, Current events and Tips |
| **Normal Flow:** | * The User launches the Application. * Landing page displays user profile picture. * Two other sections on the screen are Current events and the Tips * **Current events** could be marine boat shows uploaded to the HLM CMS. * Contents to the current events is provided by **HLM CMS** * The Tips include video or images on boat operations fetched from the HLM CMS * User taps on the media to play |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * HLM App Crash   The application does not respond to user actions on the screen for a long-time indicating application crash. The use case ends.   * Network Connectivity   During any workflow, if the internet connectivity is lost on the mobile device. The device shows message “No internet connection. Try again.”. Any unsaved data shall be lost and cannot be recovered. The use case ends. |
| **Frequency of Use:** | Every time when User logs into the application. |
| **Business Rules:** | NA |
| **Systems Impacted** |  |
| **Threshold:** | NA |
| **Security Considerations:** | **Refer Section 2.6 for security consideration** |
| **Definition of Done:** | * View Todays trip remainders, Current events and Usage Tips |

* + 1. Learn (M.12.0)

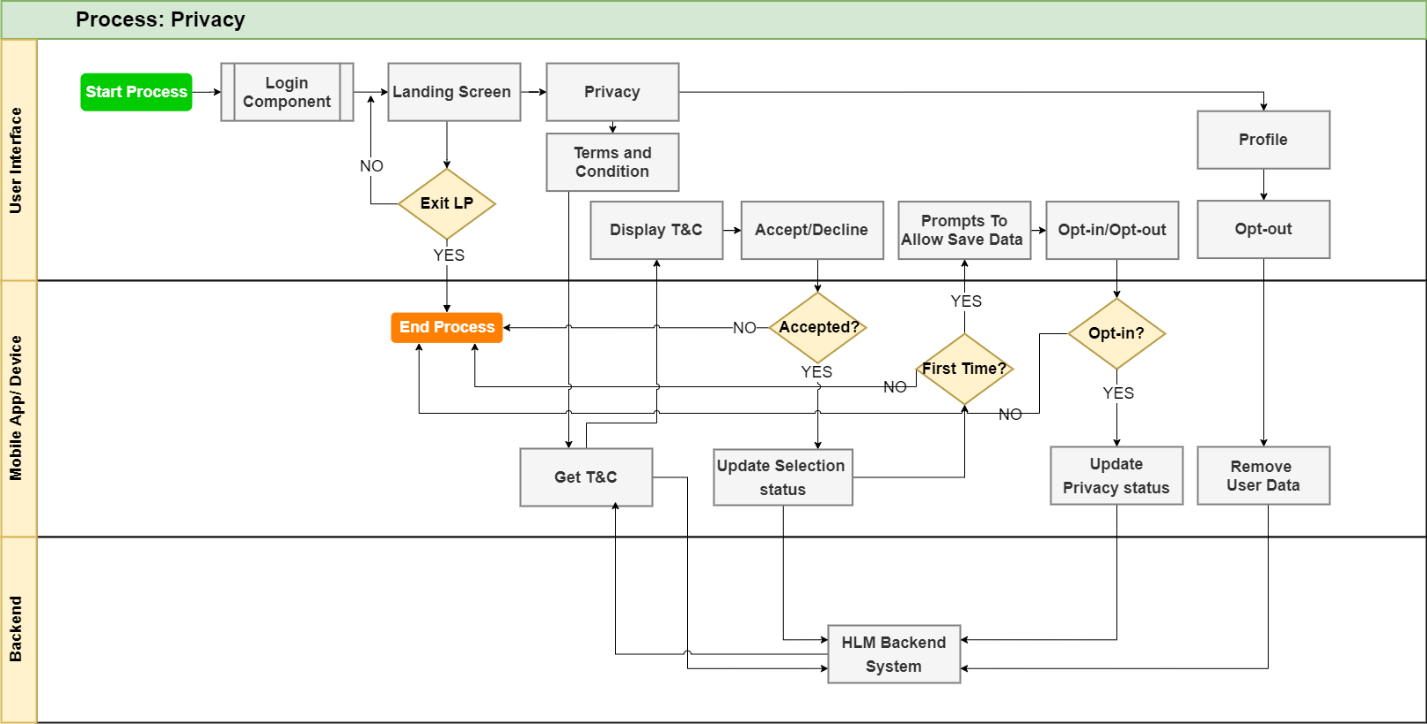
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| **ID** | **Use Case** | **Feature** | **Use case description** |
| M.12.0 | Learn | [Help](#M131) | As an app user, I would like to have Help manual to understand the application usage |
| As an app user, I would like to watch videos and learn about the outboard engine for better maintenance and safety. |
| As an app user, I would like to access to FAQs about the app usage and outboard engine details. |

* + - 1. Help

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| **Release** | **Release 3.0** | |
| [**Use Case**](#M130) **ID** | **M.12.1** | |
| **Actors:** | Boat owner/user, HLM app, CMS | |
| **Preconditions:** | * User has registered for HLM App * User enrolled a boat * User has valid subscription | |
| **Post conditions:** | * User can view the Help tips successfully * User can find videos and media files that help him learn about the boat, about boating, boating events and many more | |
| **Normal Flow:** | 1. The User evokes/ refreshes the Mobile Device / Application. 2. User Logs in successfully with his credentials 3. User taps on the Learn icon or the last menu option on the screen 4. User will get information on boat engine, servicing a boat, winterization, quick fixes to issues on the boat 5. User manual helps him to fix problems, if any quickly. 6. User can view help tips and videos on maintenance. | |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) | |
| **Exceptions:** | * HLM App Crash   The application does not respond to user actions on the screen for a long-time indicating application crash. The use case ends.   * Network Connectivity   During any workflow, if the internet connectivity is lost on the mobile device. The device shows message “No internet connection. Try again.”. Any unsaved data shall be lost and cannot be recovered. The use case ends. | |
| **Frequency of Use:** | * When the Boat Owner needs to view help features / details | |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) | |
| **Systems Impacted** | * Mobile app * CMS Database | |
| **Threshold:** | | NA |
| **Security Considerations:** | | * **Refer Section 2.6 for security consideration** |
| **Definition of Done:** | * The learn content and tips are automatically updated on the app when available. | |

* + 1. Privacy (M.13.0)

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| **ID** | **Use Case** | **Feature** | **Use case description** |
| M.13.0 | Privacy | [Terms & Condition](#M141) | As an app user, I should be able to agree the Honda specific terms & condition so that I can use the app features. |
| [Opt-in & Opt-Out](#M142) | As an app user, I should be able opt-in or opt-out so that I can always allow or deny my information to be saved or removed from the HLM ecosystem |



* + - 1. Terms & Condition

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| **Release** | **Release 1.0** |
| **Use Case ID** | **M.13.1** |
| **Actors:** | App User/Boat owner, HLM Mobile App, HLM Backend services, TCU Services, Cloud Platform Services, HIDAS, boat |
| **Preconditions:** | * App user downloads the Honda Link Marine (HLM) app * App user registers to use the HLM app * App user agrees / opt-in to use the app features * App user launches HLM app & logs in successfully |
| **Post conditions:** | * App user should be able to agree the terms & condition after successful login * On agreeing the terms & condition app user can access the app features * On declining the terms & condition the app terminates |
| **Normal Flow:** | 1. Terms & Condition Flow:  * App user launches the HLM Application * App user Logs in with his credentials. * App fetches the Terms & Condition content from HLM backend system * App user can view the terms & condition on the screen * App user can either agree or decline the terms & condition * The user selection is saved on the backend system and validated every time he logs in * If app user agrees the user shall proceed further to access the app feature * If user decline the terms & condition the app closes / terminates |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * **Connection Error**: App user will not be able to login or view the terms & condition without internet connectivity. * **User shall decline the T&C**. In such case, user shall be notified that accepting T&C is mandatory in order to use the app functionalities. * **On clicking OK, the app shall close/ terminate** |
| **Frequency of Use:** | * On app launch until user has accepted the terms & condition |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Systems Impacted** | * Mobile app * Honda Backend System – HIDAS * HLM backend services * Honda T&C system |
| **Threshold:** | NA |
| **Security Considerations:** | * **Refer Section 2.6 for security consideration** |
| **Definition of Done:** | App user to be able to   * Login successfully * Terms & condition page is displayed * User should be able to agree and proceed further to access the app feature * User should be able to decline, app shall close / terminate |

* + - 1. Opt-In & Opt-Out

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| **Release** | **Release 1.0** |
| **Use Case ID** | **M.13.2** |
| **Actors:** | App User/Boat owner, HLM Mobile App, HLM Backend services, HIDAS |
| **Preconditions:** | * App user downloads the Honda Link Marine (HLM) app * App user registers to use the HLM app * App user launches HLM app & logs in successfully * App user agrees to terms & Condition |
| **Post conditions:** | * App user should be able to Opt-In or Opt-Out to allow or deny users information to be saved or removed from the HLM ecosystem |
| **Normal Flow:** | * User goes to the profile * Right to Know: View the terms and conditions anytime. * Right to Delete: User can request for deletion of the data for a duration. The profile and boat data will be deleted for the period. * Right to Opt-out: * User can choose Notification settings to opt-out from receiving notifications via SMS, Push notifications, Email and App inbox * User can select individual Boat names (if more than one exists) and choose to opt-out from Notifications settings mentioned above * Right to set Preferences: * User can choose Preferences Settings to choose preferred Language, Measurements, Date Format, Time format * User can choose Preferences Settings to select Preferred Dealers for scheduling services * User can choose Preferences Settings to choose Boat name(s) and customize the Dashboard in Today page with sensors to be displayed for each boat (if exists) * User can set preferred vehicle timings for the door sensor to be activated. During the set timings, if there is any unauthorized entry through the boat cabinet door an alert will be notified to user. |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * **Connection Error**: App user will not be able to login or view the terms & condition without internet connectivity. |
| **Frequency of Use:** | * Mandatory selection on first time app usage * On demand if users decide to opt-out |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Systems Impacted** | * Mobile app * Honda Backend System – HIDAS * HLM backend services |
| **Definition of Done:** | App user to be able to   * Login successfully * Terms & condition page is displayed and agreed * Anytime during the app usage, if user decide to opt-out, they can go to profile page and tap on Opt-out option |

Alternate Flow(s) – Opt-Out

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| **ID#** | **Use case name** | **Use case description** |
| 01 | Opt-Out alternate flow | Boat owner shall reach Honda marine L1/L2 support and request for opting out the service(s) and the support team shall use the admin portal services for managing the services(s) |

* + 1. Demo App (M.14.0)

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| **ID** | **Use Case** | **Feature** | **Use case description** |
| M.14.0 | Demo App | Demo Application | As an app user, I should be able to use a demo application for my understanding. |

* + - 1. Demo Application

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| **Release** | **Release 1.0** |
| **Use Case ID** | **M.14.1** |
| **Actors:** | App User/Boat owner, HLM Mobile App |
| **Preconditions:** | * App user downloads and installs the Honda Link Marine (HLM) demo app * App user launches HLM demo app |
| **Post conditions:** | * App user should be able to use demo app for understanding all the expected features of the actual HLM app. |
| **Normal Flow:** | * App user launches the HLM Demo Application by clicking the link from the login page. * App user shall run all the demo features from Demo app. |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * + **Problem in internet connection**: If user does not have the internet connectivity in the mobile application throw the error message to enable the internet connection. |
| **Frequency of Use:** | * As and when user wants to understand the HLM app features. |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Systems Impacted** | * Mobile app |
| **Threshold:** | NA |
| **Security Considerations:** | * **Refer Section 2.6 for security consideration** |
| **Definition of Done:** | App user to be able to   * Launch the demo app using the link. * User should be able to proceed further to explore the app features. * User should be able to close / terminate the demo app |

* + 1. Firmware Update (M.15.0)

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| **ID** | **Use Case** | **Feature** | **Use case description** |
| M.15.0 | Firmware Update | Pull Firmware to TCU | As an app user, I should be able to update Firmware on my TCU. |

* + - 1. Update Firmware

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| **Release** | **Release 1.0** |
| **Use Case ID** | **M.15.1** |
| **Actors:** | App User/Boat owner, HLM Mobile App, HLM Backend services, TCU Services, Cloud Platform Services, HIDAS, Telit |
| **Preconditions:** | * App user downloads the Honda Link Marine (HLM) demo app * App user registers to use the HLM demo app * App user agrees / opt-in to use the HLM demo app features * App user launches HLM demo app & logs in successfully |
| **Post conditions:** | * App users gets the Firmware update Notification on the app. * App user can update Firmware immediately when notified or schedule the Date and Time for update to take effect later. |
| **Normal Flow:** | * App users gets the Firmware update Notification on the app. * User selects Update button to start Firmware update immediately. * User can also schedule Firmware update to a later Date and Time by selecting Schedule Update option. * A Notification is shown on the app when scheduled Date and Time is reached for update to take effect. * App user selects Update button. * Once the update request is received from Boat owner, TCU shall pull the latest Firmware from Telit. |
| **Data Metrics:** | * Number of times HLM App user updates Firmware. |
| **Exceptions:** | * **Connectivity to Telit**: If connectivity to Telit is lost; the Firmware update execution will fail and will resume once the connection is re-established. * **Invalid Honda ID Error**: If a user enters invalid Honda ID and try to login, which will fail and show the error message as “user record not found”. * **Invalid password Error**: If user enters valid Honda ID and invalid password, user gets appropriate error message and prompted to enter the correct password. * **User Account Locked**: if user entered incorrect login credential 3 consecutive time, the account gets locked and error message shown to user. When account locked state user will not be able to login unless the account gets unlocked. * **Press cancel button**: Tap on cancel button for login and forgot password option cancels the operation and will not achieve the use case goal. * **Problem in internet connection**: If user does not have the internet connectivity in the mobile application throw the error message to enable the internet connection. * **Error retrieving the data**: Problem occurred retrieving the data from Honda backend (HIDAS) use case ends and appropriate error message shown to retry or try after some time. |
| **Frequency of Use:** | * Based on the Firmware Update frequency. |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Systems Impacted** | * Telit * TCU * HLM Mobile app * HLM Database * Honda backend system |
| **Threshold:** | NA |
| **Security Considerations:** | * **Refer Section 2.6 for security consideration** |
| **Definition of Done:** | App user to be able to   * Login successfully * Firmware Update Notification is received on App. * User should be able to Update Firmware immediately. * User should be able to Schedule Firmware Update to a specific Date and Time. |

* + 1. Dashboard Themes
       1. Customize Dashboard themes

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| **Release** | **Release 3.0** |
| **Use Case ID** | **M.16.1** |
| **Actors:** | App User/Boat owner, HLM Mobile App, HLM Backend services, HIDAS |
| **Preconditions:** | * App user downloads the Honda Link Marine (HLM) app * App user registers to use the HLM app * App user launches HLM app & logs in successfully * App user agrees to terms & Condition |
| **Post conditions:** | * App user should be able to customize the Dashboard themes by selecting the sensor data to be displayed in Today Page |
| **Normal Flow:** | * User goes to the profile * User can choose Preferences Settings to choose Boat name(s) and customize the Dashboard in Today page with sensors to be displayed for each boat (if exists) from the below options: * Engine speed * Engine Boost pressure * Engine Tilt/Trim * Engine Temp * Alternator potential * Fuel Balance * Total Engine Hours * Transmission Gear * Rated Engine Speed * Check Engine * Over Temperature * Low Oil Pressure * Water in Fuel * Charge Indicator * Rev Limit Exceeded * Emergency Stop Mode |
| **Data Metrics:** | * Number of times user sets Dashboard themes |
| **Exceptions:** | * + **Press cancel button:** Tap on cancel button for updating Dashboard themes option cancels the operation and will not achieve the use case goal.   + **Problem in internet connection:** If user does not have the internet connectivity in the mobile application throw the error message to enable the internet connection.   + **Error retrieving the data:** Problem occurred retrieving the data from Honda backend system use case ends and appropriate error message shown to retry or try after some time. |
| **Frequency of Use:** | * Mandatory selection on first time app usage * On demand if users decide to customize Dashboard |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Systems Impacted** | * Mobile app * Honda Backend System – HIDAS * HLM backend services |
| **Threshold:** | NA |
| **Security Considerations:** | * App User/Boat owner, HLM Mobile App, HLM Backend services, HIDAS |
| **Definition of Done:** | * App user downloads the Honda Link Marine (HLM) app * App user registers to use the HLM app * App user launches HLM app & logs in successfully * App user agrees to terms & Condition |

* 1. Backend Cloud setup use cases
     1. Backend Cloud setup use cases (C.1.0)

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| **ID** | **Use Case** | **Feature** | **Use case description** |
| C.1.0 | Cloud | [Backend Infra Structure Setup](#C11) | Setting up Cloud Infrastructure to store the boat data and deploy the backend API to provide information to end user application.  It comprises cloud services provider controls and handles the boat deeds in the backend cloud architecture using rest API and provides the required details for UI for ultimate consumer experience. |
| iN portal integration | Integrate with iN portal system to get the dealer information, Engine and TCU manufacturing details. |
| [Integration Honda’s Backend components](#C12) | Integration of diverse components i.e. HIDAS, Notification Engine, CPM etc. for data exchange, frequently to get across HLM cloud. |
| Online Service Scheduling integration (OSS) | Integrate with OSS system for ultimate user to scheduling an appointment and to notify in advance for the services of boat/Engine. |
| Subscription Platform integration | Integrate with subscription platform services to provide available package and subscription model to ultimate user. |
| Scheduler job services | Create scheduler service to monitor and send the health report, Service reminders and subscription reminders etc. to users for information. |
| [Integration with Telit deviceWise](#C13) | Cloud integration with Telit IoT platform (deviceWise).  Telit IOT platform that enables straightforward provisioning, configured Data store & Notification engine etc and in turn integrated with the Cloud |
| [CI/CD pipeline configuration](#C14) | Setting Continuous Integration/Continuous Deployment, is the backbone of the modern DevOps pipeline. It bridges the gap between development and operations teams by automating the building, testing, and deployment of applications source code |
| [Backend services for visualization component](#C15) | Creation of Backend-as-a-Service is a cloud service model in which developers outsource all the behind-the-scenes aspects of a web or mobile application |
| [Data management](#C16) | Configure data management for acquiring, validating, storing, protecting, and processing required data to ensure the accessibility, reliability, and timeliness of the data for its users. |

* + - 1. Backend Infra Structure Setup

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| [Use case](#C10) **ID** | **C.1.1** |
| **Actor:** | AWS Cloud, S3 Bucket, MQTT Service, PostgreSQL |
| **Preconditions:** | * AWS account should be purchased and ready to setup the instance |
| **Post conditions:** | * Cloud services and infrastructure should be successfully setup such as Kinesis stream, Red Hat Open shift, PostgreSQL, Virtual machines, Load balancer and other component based on the architecture. * Cloud formation template to import the infra to some other cloud in future * Logical Database schema should be ready for database creation |
| **Normal Flow:** | * Select AWS cloud platform and the instances * Create virtual machines for development staging and production environment * Create the cloud watch for the monitoring services * Configure the message queue to receive the data streamed from IoT platform * Configure the security components to make sure necessary security measures * Select database storage required to store the data (PostgreSQL) * Configure Kinesis stream and Kinesis analytics with rule engine to store the data to database * Create necessary load balancer to make sure the high availability of the system * Create necessary EKS cluster as container to host the microservices API and deploy the web apps. |
| **Data Metrics:** | * Data size of the database * No. of VMs used in the infrastructure |
| **Exceptions:** | * **VPN connection to the cloud**: Error while connecting Honda network to access the cloud server. * **Communication error with Telit platform**: Communication error while connecting to the Telit platform will cause not getting the data from IoT platform. |
| **Frequency of Use:** | * First time and whenever future change in the cloud platform |
| **Business Rules:** | * Cloud should be selected cost effective and easy for future maintenance. * High availability of the cloud resource should be taken care |
| **Systems Impacted** | * HLM mobile app * Fleet portal * Admin portal * IoT Platform |
| **Definition of Done:** | * Cloud platform should be setup for data stream, data store and microservice deployment. * Cloud watch and cloud security to be configured in the cloud * High availability should be made for all the components of the cloud. |

* + - 1. iN Portal Integration

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| [Use case](#C10) **ID** | C.1.2 |
| **Actor:** | AWS Cloud, HLM mobile app, Fleet portal, Admin portal, iN portal |
| **Preconditions:** | * iN portal readiness to accommodate Marine changes |
| **Post conditions:** | * Marine engine, TCU and sales report will be part of iN portal. * Honda Marine dealers shall be fetched from iN portal. * API or interface availability to get the data from iN portal. * Engine and TCU warranty, incentive and offer details shall be fetched from iN portal. |
| **Normal Flow:** | * Honda Marine dealers list to display the nearby dealers in the app (both out board and non-outboard). * Sales registration details such as Engine details, TCU details with unique PIN and customer details in the portal to fetch for ownership verification. * Honda Engine and TCU warranty details for the customers to display it in the app. * Service incentives and coupons for the customer to display it in the offer zone (This information shall be stored in the ECRM tool). * Sales report details from iN portal for Engine and TCU sale. Need API details to fetch the sales data to prepare the report in admin portal. |
| **Data Metrics:** | * No. of Honda engine and TCU sold for customers. * No. of Honda Marine dealers in the system. * No. of users purchased the Engine through dealership and online platform. |
| **Exceptions:** | * **Integration endpoint unavailability**: If integration endpoints are not identified or unavailable alternate plan to be defined to fetch the data. * **SAP web service unavailability**: If SAP web services are not available to fetch any information need to work on the alternate plan to fetch the data from SAP. |
| **Frequency of Use:** | * Based on the user action on Service management in the end user application |
| **Business Rules:** | * Honda’s team to support on the integration endpoint identification and configuration. * Necessary permission to be given to integrate with the internal systems. |
| **Systems Impacted** | * HLM backend services * HLM mobile app * Fleet portal * Admin portal |
| **Definition of Done:** | * iN portal shall be considered as sales registration portal and provide the data. * Engine, TCU and sales report shall be fetched from iN portal. * Necessary endpoints (API) should be exposed for application integration. |

* + - 1. Integration of Honda’s Backend components

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| [Use case](#C10) **ID** | C.1.3 |
| **Actor:** | AWS Cloud, Honda backend services, HLM mobile app, Fleet portal, Admin portal |
| **Preconditions:** | * Decision on the internal component integration with cloud platform |
| **Post conditions:** | * Selected internal components should be integrated with the cloud * Integrated system data flow should be made available * Necessary API availability to get and set data from integrated system |
| **Normal Flow:** | * HIDAS API shall be used to integrate with the mobile app for the registration, Login, change password and forgot password. * Integrate with Honda active directory to fetch the user data for admin portal authentication. * Notification engine shall be used to send the notification to the users. * Terms and Condition shall be fetched from CPM and integrate with the HLM system to display the terms and condition to the users. * Integrate the PGN code master database and integrate with the HLM system. * Integrate the Content Management System for marine related contents, marine tips for users, Marine specific events. |
| **Data Metrics:** | * No. of internal system integrated with the cloud * Count of the failure requests to the integrated system. |
| **Exceptions:** | * **Integration endpoint unavailability**: If integration endpoints are not identified, chosen cloud platform services to be used. * **Unavailability of PGN code repository**: If PGN code repository is unavailable the PGN master data will be stored in HLM cloud database. |
| **Frequency of Use:** | * First time and whenever future change proposed for cloud platform |
| **Business Rules:** | * Honda’s EA team to support on the integration endpoint identification and configuration. * Necessary permission to be given to integrate with the internal systems. |
| **Systems Impacted** | * HLM backend services * HLM mobile app * Fleet portal * Admin portal |
| **Definition of Done:** | * Cloud platform to be configured with selected existing internal interfaces. * Cloud platform should be able to use the integrated components seamlessly. * Necessary endpoints (API) should be exposed for application integration. |

* + - 1. Online Service Scheduling integration (OSS)

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| [Use case](#C10) **ID** | C.1.4 |
| **Actor:** | AWS Cloud, Honda backend services, HLM mobile app, Fleet portal |
| **Preconditions:** | * Decision and finalization of the OSS component to be integrated. |
| **Post conditions:** | * Integrate with third party OSS software to schedule service appointment * Mobile app, web app should have API available to create and manage service appointment. |
| **Normal Flow:** | * Mobile app, web portal shall have an option for user to book service appointment directly by calling dealer (based on the Dealer phone number availability and OSS web view availability). * For specific dealer if OSS system is available then the URL for the OSS web view shall be provided to book the appointment. |
| **Data Metrics:** | * Number of users booked service through OSS web view. * Failed count when user trying to call dealer for scheduling the service. |
| **Exceptions:** | * **Unavailability of the OSS system**: If OSS software is unavailable, user must schedule the service by manually calling the dealer through the option provided in the app. * **Error scheduling the service**: If OSS system provides failure response when user schedule the service because of unavailability of system or any other reason, user shall be notified with proper error message. |
| **Frequency of Use:** | * Whenever user wants to schedule engine or boat service. |
| **Business Rules:** | * OSS system shall be finalized based on the system used by the dealers. * Honda OSS should be integrated with HLM cloud |
| **Systems Impacted** | * HLM backend services * HLM mobile app * Fleet portal |
| **Definition of Done:** | * User should have an option to schedule the boat/engine service with preferred dealer. * User should be able to schedule the service appointment and dealer should get notified about the appointment. * User should be notified about the service when nearing the service dates. |

* + - 1. Subscription platform integration

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| [Use case](#C10) **ID** | C.1.5 |
| **Actor:** | AWS Cloud, Honda backend services, HLM mobile app, Fleet portal |
| **Preconditions:** | * Subscription platform software API. * User registered with the app and add the boat. |
| **Post conditions:** | * Integrate with subscription platform to provide the subscription package to the user * User should be able to select the subscription based on the features provided. * User should be able to select addon services along with the existing package. * User should have an option to select free trial for while adding the engine details at the first time. * User should have an option to convert free subscription to paid subscription * User should have an option to cancel the subscription * User should have an option to transfer the subscription to other user when they sell the boat * User should have an option to upgrade the subscription package from the existing one. |
| **Normal Flow:** | * Integrate with subscription platform solution to provide option for user to enroll to the program. * Add boat flow should have option to select the subscription plan to consume the feature provided. * First time while adding the engine, user should have an option to select free trial based on the configured period. * Once user choose the subscription package, he should have an option to manage his subscription to select addon, upgrade/downgrade etc. * User shall have an option to cancel the subscription at any point in time. * User shall have an option to transfer the ownership of subscription while selling the boat. |
| **Data Metrics:** | * Number of users converted from free trial to paid subscription * Number of users churn from the subscription package. |
| **Exceptions:** | * **Unavailability of the subscription system**: Unavailability of the subscription platform because of the internal server issues, user should try to enroll back again after system proposed time. In this case, user shall get proper error message with the information. * **Failure in Payment gateway**: Failure in payment gateway shall stop the subscription flow and provide the necessary error message to the user with retry option. |
| **Frequency of Use:** | * Whenever user wants to enroll and manage the subscription. |
| **Business Rules:** | * User bank details, card details will not be saved in Honda’s server (shall be shown necessary terms and conditions to users). * Subscription analytics report shall be generated and take necessary action to keep the users in the system. |
| **Systems Impacted** | * HLM backend services * HLM mobile app * Fleet portal |
| **Definition of Done:** | * User should have an option to schedule the boat/engine service with preferred dealer. * User should be able to schedule the service appointment and dealer should get notified about the appointment. * User should be notified about the service when nearing the service dates. |

* + - 1. Scheduler job services

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| [Use case](#C10) **ID** | C.1.6 |
| **Actor:** | AWS Cloud, Honda backend services, HLM mobile app, Fleet portal |
| **Preconditions:** | * Gather data from TCU about the engine, boat health. * Gather data from application about service reminders and subscription reminders. |
| **Post conditions:** | * User shall receive the scheduled report in their email or in app about health report of both engine and boat. * User shall receive the reminder for scheduled service. * User shall receive email regarding the subscription management emails. |
| **Normal Flow:** | * Scheduler service to send the monthly health report to respective users * Scheduler which runs to checks the ownership data in Honda backend system if delayed entering the sales data in backend system. * Scheduler service to gather the data from database and send the service reminders for the user. * Scheduler service to gather the data from subscription platform and send the information to users for their subscription management. |
| **Data Metrics:** | * Number of users opted for scheduled monthly health report feature. * Number of users as active subscribers. |
| **Exceptions:** | * **Error in server to execute scheduler job**: Error due to server availability may fail to send the scheduled content to users. |
| **Frequency of Use:** | * Based on the scheduler frequency. |
| **Business Rules:** | * Monthly health report template should adhere to Honda standard report template. |
| **Systems Impacted** | * HLM backend services * HLM mobile app * Fleet portal |
| **Definition of Done:** | * User should receive the scheduled report in their email or in app about health report of both engine and boat. * User should receive the reminder for scheduled service. * User should receive email regarding the subscription management emails. |

* + - 1. Integration with IoT platform (Telit deviceWise)

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| [Use case](#C10) **ID** | C.1.7 |
| **Actor:** | AWS Cloud, S3 bucket, PostgreSQL, HLM mobile app, Fleet portal, Admin portal |
| **Preconditions:** | * Streaming component should be ready to receive the data from IOT platform * Data store, Notification engine, Message Queue should be configured * Database schema and physical database table to store the data should be ready * Connectivity (Cellular) should be in place to pass the device data to IoT platform |
| **Post conditions:** | * Integration with IoT platform to receive the sensor data and store it in the database * Sensor data should be streamed through IoT platform to the storage. |
| **Normal Flow:** | * Select the IoT platform to communicate with TCU and get the data (Telit deviceWise) * Identify the strategy to integrate the IoT platform with the AWS cloud (cloud-to-cloud) * Cloud to cloud integration with deviceWise platform to continuously receiving the data from devices. * Enable secure pass-through of the device data to cloud platform * Encrypt the device data while passing from IoT platform to cloud storage * Configure rule engine to process the data and send the data to respective data store. * Store the data in necessary data store as per the rules configured. * Store all raw data received from device to S3 bucket for the future requirement of analytics |
| **Data Metrics:** | * No. of times IoT platform fail to send the data * Storage capacity of the database |
| **Exceptions:** | * **Connection failure or data loss**: Connection failure or data loss while transferring data from IoT platform to cloud storage will lead missing of information. * **Connectivity issues**: Connectivity issues on internet will lead to failure of packet and possible data loss. |
| **Frequency of Use:** | * Every time when data pushes to cloud |
| **Business Rules:** | * Communication channel should be secure and encrypted * Data size should be defined for the queue to send to cloud storage. |
| **Systems Impacted** | * HLM backend services * HLM mobile app * Fleet portal * Admin portal |
| **Definition of Done:** | * Infrastructure should be ready to get the data from IoT platform to data storage (AWS). * IoT device data should be processed and stored in the database securely. * Encryption of data should be available while secure pass through. |

* + - 1. CI/CD pipeline Configuration

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| [Use case](#C10) **ID** | C.1.8 |
| **Actor:** | AWS Cloud, HLM backend service, HLM mobile app, Fleet portal, Admin portal |
| **Preconditions:** | * Decision on CI/CD components for code check-in tool, build server, deployment server should be made. |
| **Post conditions:** | * Development team should be able to commit daily work to source repository * Automatic code analysis should be done with defined code metrics checklist * Build to be created in the build server and deployed in the development, staging and production server. |
| **Normal Flow:** | * Develop a DevOps pipeline to automate the build and deployment * Identify the source repository for the source control, build server and deployment server for the app and backend service to host it. * Configure the identified source repository for daily commit with check-in rules * Identify and configure the static code analysis tool for the source code and define the checklist. * Configure the build server to build the deployment package upon daily code check-in by the development team * Configure the deployment server to get the build from build server and deploy it for testing team to test. * Check the build by running the configured static analysis checklist and provide necessary notification to the development team. |
| **Data Metrics:** | * No. of time build failed * No. of time build success * No. of time build failed due to static analysis rule violation * No. of time deployment failed |
| **Exceptions:** | * **Availability of the DevOps tools**: If DevOps tools identified are unavailable need to check on the alternate option to configure the pipeline. * **Availability of build server**: If build server error or unavailability the build fails, and necessary message will pass to development team * **Availability of deployment server**: If deployment server is unavailable or error in connection, the deployment will fail, and message will pass it to development team * **Connection issue**: If internet connectivity is lost between development machine and build server the build will fail and queue for the next time connection availability. |
| **Frequency of Use:** | * One time and whenever future change in the DevOps pipeline |
| **Business Rules:** | * Honda EA team to confirm on the DevOps tool selected * DevOps pipeline tools license should be reviewed and approved by Honda * Honda existing DevOps practice should be followed |
| **Systems Impacted** | * HLM backend services * HLM mobile app * Fleet portal * Admin portal |
| **Definition of Done:** | * Source code repository should be available for code check-in * Developer should be able to check-in the source code in repository and automatic build should be produced * Static analysis tool should be ready with code metrics result. * Testing team should get the build for testing from a common place. * Mechanism to report the test cases and bug tracking should be configured. |

* + - 1. Portal and mobile app backend services

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| [Use case](#C10) **ID** | C.1.9 |
| **Actor:** | AWS Cloud, HLM backend service, S3 bucket, PostgreSQL, Container cluster |
| **Preconditions:** | * Cloud setup and configuration should be ready * Integrating with IoT platform should be ready and data should be available * Database should be created and ready to use * Deployment container should be configured and available to use. * API connect should be configured to pass the data to outside of cloud infra |
| **Post conditions:** | * Web services (API) for mobile app and web app should be available * Implemented API should be secure and hosted in the cloud service |
| **Normal Flow:** | * Identify and define the API required for mobile app. * Identify and define the API required for web app. * Implement logic to fetch the data from cloud database as per the business logic * Implement logic to update the cloud database as per the business logic * Create the microservice for each API to make sure they are interdependent * Deploy the microservices and expose API endpoint to configured container for mobile and web application to use it. * Pass the API endpoint through API connect (Honda component) to integrate with the visualization components. |
| **Data Metrics:** | * Count of API created for mobile app and web app |
| **Exceptions:** | * **Connectivity**: If connectivity is not available for mobile application to fetch the API endpoint the data flow will not happened, and necessary message will be shown. * **Database connectivity**: If database connectivity is lost while calling the API the data will not be shown to user and proper error message will be shown to user. |
| **Frequency of Use:** | * Need based (when user use it through mobile app and web portal) |
| **Business Rules:** | * Open source container platform should be selected to host the API * Honda EA team to check and confirm on the container platform for deployment. * Design and API identification should be reviewed and approved by Honda architect. |
| **Systems Impacted** | * HLM backend services * HLM mobile app * Fleet portal * Admin portal |
| **Definition of Done:** | * Identified endpoint to be created and deployed for mobile application to use it * Identified endpoint to be created and deployed for web application to use it * High availability of the cloud resource to fetch the data should be in place. |

* + - 1. Data & Infrastructure management

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| [Use case](#C10) **ID** | C.1.10 |
| **Actor:** | AWS Cloud, HLM backend service, S3 bucket, PostgreSQL |
| **Preconditions:** | * Data storage should be finalized and configured * Data management rules should be identified * Data retention, backup and archival policy should be defined |
| **Post conditions:** | * Data management rules should be implemented for data backup, retention and archival * Cloud infrastructure monitoring should be done using necessary tool |
| **Normal Flow:** | * Identify the rule for data backup such as frequency, back up repository etc. * Identify the data retention and archival policy for PostgreSQL * Configure PostgreSQL and S3 bucket to abide the data backup and retention policy * Configure the database to do automated data backup to the selected data store * Add cloud watch to monitor the cloud infrastructure usage. * Monitor the infra usage and decide on the change in the cloud infra based on the need * Make sure the high availability of the cloud resources across the region. |
| **Data Metrics:** | * Size of the data backup storage * Frequency of data backup, retention and archival. |
| **Exceptions:** | * **Connectivity**: If connectivity between source and destination database is lost, the data backup will fail and will resume once the connection is re-established. |
| **Frequency of Use:** | * Based on the data management rules (Backend service which will run in the cloud) |
| **Business Rules:** | * Data management rules should be defined * Cloud monitoring tool should be identified and approved by Honda |
| **Systems Impacted** | * HLM backend services * HLM mobile app * Fleet portal * Admin portal |
| **Definition of Done:** | * Data backup rule should be defined, configured, and implemented. * Data retention rule should be defined, configured, and implemented. * Data archival rule should be defined, configured, and implemented. * Cloud monitoring service should be identified and configured for the watch. |

* + - 1. Simulator -Data Stream

Simulator features:

1. Mocking payload as per frequency
2. Configuring the simulator for multiple boats
3. Implementation of COSE on JSON
4. Key management
5. FOTA (Firmware upload, FOTA campaign)
6. Satellite Connectivity (payload structure)

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| [Use case](#C10) **ID** | C.1.11 |
| **Actor:** | AWS Cloud, HLM backend service, S3 bucket, PostgreSQL, HLM mobile app, Fleet portal, Telit IoT portal |
| **Preconditions:** | * Mock data shall be available which is required for Simulating respective features * App token shall be available for connecting vehicle data to simulator * On Telit portal we shall have a trigger maintained which will pass the data from vessel simulator to HLM Backend system |
| **Post conditions:** | * HLM Backend shall receive simulated data like Engine data, Location data, Boat data and Alarms. * Simulated data shall be torn down from the HLM Backend |
| **Normal Flow:** | * Simulator connects to Telit portal via secured MQTT connection * Engine data, Location data, Sensor data and Alarm data will be published to the Telit portal * Telit acts as data pass through system * Telit IoT portal invokes the HLM Backend end points via REST APIs |
| **Data Metrics:** | * NA |
| **Exceptions:** | * **Exception in connecting to HLM Backend via App token:** InvalidApp token used while connecting to Telit portal might throw an exception. * **Exception in wrong trigger configuration:** On the Telit portal end if the trigger is incorrectly configured, vessel simulator fails to communicate to HLM backend, an exception will be thrown. * **Exception from HLM Backend:** On the HLM backend, if the exposed end point fails to handle the request an exception will be thrown. * **Connectivity issues**: Connectivity issues on internet will lead to failure of packet and possible data loss. |
| **Frequency of Use:** | * During testing in QA environment. |
| **Business Rules:** | * All the communications from Simulator to Telit portal and from Telit portal to HLM Backend will be secured. |
| **Systems Impacted** | * HLM backend services * HLM mobile app * Fleet portal |
| **Definition of Done:** | * HLM Backend receives simulated data like Engine data, Location data, Boat data and Alarms. * Test user will be able to view simulated data in the HLM App and Fleet portal. * Tear down of Simulated data from the HLM Backend. |

* + 1. Support use cases (C.2.0)
       1. FOTA- campaign creation automation, upload firmware binaries.

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| [Use case](#C10) **ID** | C.2.1 |
| **Actor:** | Support Admin, Reporting Data store, HLM backend service, S3 bucket, PostgreSQL, Boat owner/user, Fleet Owner, TCU, Telit |
| **Preconditions:** | * CCS portal readiness to accommodate upload Firmware to Telit. |
| **Post conditions:** | * HLM App users gets the Firmware update Notification on the app. * HLM App user can update Firmware immediately when notified or schedule the Date and Time for update to take effect later. * Fleet Portal users gets the Firmware update Notification on the Fleet portal. * Fleet portal user can update Firmware immediately when notified or schedule the Date and Time for update to take effect later. |
| **Normal Flow:** | * Support Admin logs in to the CCS portal with valid credentials. * CCS portal validates the authentication of user role and allows log in. * Support login uploads latest Firmware to Telit using CCS portal. * HLM App users gets the Firmware update Notification on the app. * HLM App user can update Firmware immediately when notified or schedule the Date and Time for update to take effect later. * Fleet Portal users gets the Firmware update Notification on the Fleet portal. * Fleet portal user can update Firmware immediately when notified or schedule the Date and Time for update to take effect later. * Once the update request is received from Boat owner / Fleet owner TCU shall pull the latest Firmware from Telit. |
| **Data Metrics:** | * Number of times Firmware upgrade requests are sent to Telit via CCS portal. * Number of times HLM App user updates Firmware. * Number of times Fleet portal user updates Firmware. |
| **Exceptions:** | * **Connectivity**: If connectivity to Telit is lost; the Firmware update execution will fail and will resume once the connection is re-established. * **No Connectivity**: If internet connectivity is lost during the workflow, the device shows message “No internet connection. Try again later” |
| **Frequency of Use:** | * Based on the Firmware Update frequency. * Based on the Support Admin user action in the CCS portal. |
| **Business Rules:** | * Firmware upload security assessment to be done by Support team. |
| **Systems Impacted** | * CCS portal * Telit * HLM Backend services * TCU |
| **Definition of Done:** | * HLM App users gets the Firmware update Notification on the app. * HLM App user clicks on Update Firmware immediately when notified or schedule the Date and Time for update to take effect later. * Fleet Portal users gets the Firmware update Notification on the Fleet portal. * Fleet portal user clicks on Update Firmware immediately when notified or schedule the Date and Time for update to take effect later. |

* + - 1. Summary Tables—Stored procedures, scheduler

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| [Use case](#C10) **ID** | C.2.2 |
| **Actor:** | Support Admin, Reporting Data store, HLM backend service, S3 bucket, PostgreSQL |
| **Preconditions:** | * CCS portal readiness to accommodate Summary Tables for Monthly report, Service reminders, Subscription reminders. |
| **Post conditions:** | * Monthly report, Summary table will be part of CCS portal. * Boat data, Service data shall be fetched from Reporting Data store. * Stored procedure availability to get the data from database. * Scheduler program availability to schedule automatic report creation. |
| **Normal Flow:** | * Support Admin logs in to the CCS portal with valid credentials. * CCS portal validates the authentication of user role and allows log in. * Monthly Report, Summary table data to be displayed in the CCS portal Dashboard. * Monthly Report details such as Engine data, Sensor data, Location details, PGN details and Speed details to display boat and engine health data. * Summary service is a scheduler program generates monthly report from historical data and emails to the registered email id. |
| **Data Metrics:** | * Number of users opted for scheduled monthly health report feature. * Number of users as active subscribers. |
| **Exceptions:** | * **Connectivity**: If connectivity to Reporting Data store is lost, the stored procedure execution will fail and will resume once the connection is re-established. * **Email server does not work**: The report remains in Queue until the email server is available * **No Connectivity**: If internet connectivity is lost during the workflow, the device shows message “No internet connection. Try again later” |
| **Frequency of Use:** | * Based on the scheduler frequency. * Based on the Support Admin user action in the CCS portal. |
| **Business Rules:** | * Monthly health report template should adhere to Honda standard report template. |
| **Systems Impacted** | * CCS portal * Reporting Data store |
| **Definition of Done:** | * Monthly report, Service Reminder table and Subscription summary table shall be displayed in CCS portal. * Necessary Stored procedures should be executed for Summary table creation. * User should receive the scheduled report in their email or in app about health report of both engine and boat. * User should view the reminder report for scheduled service. * User should view the subscription management report. |

* + - 1. Feature list maintenance and mapping with subscription packages

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| [Use case](#C10) **ID** | C.2.3 |
| **Actor:** | Support Admin, Reporting Data store, HLM backend service, S3 bucket, PostgreSQL |
| **Preconditions:** | * CCS portal readiness to accommodate Summary Tables for Feature lists, mapping with Subscription packages. |
| **Post conditions:** | * Feature List and mapping with subscription package will be part of CCS portal. * List of Features, Subscription package data shall be fetched from Reporting Data store. * Stored procedure availability to get the data from database. |
| **Normal Flow:** | * Support Admin logs in to the CCS portal with valid credentials. * CCS portal validates the authentication of user role and allows log in. * Feature List and mapping with subscription package data to be displayed in the CCS portal. * Feature List details to include all the user required features for the HLM App and corresponding Subscription package allocated for each subscription types: Free trial and Paid. |
| **Data Metrics:** | * Number of features available for each Subscription package. * Number of features available for free trial subscription. * Number of features available for Paid subscription. |
| **Exceptions:** | * **Connectivity**: If connectivity to Reporting Data store is lost; the stored procedure execution will fail and will resume once the connection is re-established. * **No Connectivity**: If internet connectivity is lost during the workflow, the device shows message “No internet connection. Try again later” |
| **Frequency of Use:** | * Based on the Support Admin user request for Feature list and Subscription package mapping in the CCS portal. |
| **Business Rules:** | * Feature list and Subscription packing mapping report template should adhere to Honda standard report template. |
| **Systems Impacted** | * CCS portal * Reporting Data store |
| **Definition of Done:** | * Feature list and Subscription packing mapping data shall be displayed in CCS portal. * Necessary Stored procedures should be executed for Summary table creation. |

* + - 1. Threshold Management

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| [Use case](#C10) **ID** | C.2.4 |
| **Actor:** | Support Admin, Reporting Data store, HLM backend service, S3 bucket, PostgreSQL, TCU |
| **Preconditions:** | * CCS portal readiness to accommodate Summary Tables for Threshold management for Boat Health parameters. |
| **Post conditions:** | * Threshold values and range for the Boat Health parameters shall be displayed in CCS portal. * List of Boat Health parameters and their instantaneous values shall be fetched from Reporting Data store. * Stored procedure availability to get the data from database. * Pre-defined Color coding shall be used to display Acceptable limit, Warning and Threat indicators. |
| **Normal Flow:** | * Support Admin logs in to the CCS portal with valid credentials. * CCS portal validates the authentication of user role and allows log in. * Priorly set Threshold values for the Boat Health parameters to be displayed in the CCS portal. * Threshold management table to display threshold values along with color indication for criticality. * Support Admin shall Edit/Update/Delete Threshold values for boats. * The modified threshold values shall be saved and updated in the TCU for all the applicable Boats. |
| **Data Metrics:** | * Threshold value of parameters for acceptable limit. * Threshold value of parameters for warning limit. * Threshold value of parameters for Threat limit. |
| **Exceptions:** | * **Connectivity**: If connectivity to Reporting Data store is lost; the stored procedure execution will fail and will resume once the connection is re-established. * **No Connectivity**: If internet connectivity is lost during the workflow, the device shows message “No internet connection. Try again later” |
| **Frequency of Use:** | * Based on the Support Admin user request for Threshold management table in the CCS portal. |
| **Business Rules:** | * Threshold management report template should adhere to Honda standard report template. |
| **Systems Impacted** | * CCS portal * Reporting Data store |
| **Definition of Done:** | * Threshold management table data shall be displayed in CCS portal. * Support personnel can Edit/Update/Delete Threshold values for boats. * Necessary Stored procedures should be executed for Summary table creation. |

* + - 1. Static checklists management

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| [Use case](#C10) **ID** | C.2.5 |
| **Actor:** | Support Admin, Reporting Data store, HLM backend service, S3 bucket, PostgreSQL, OSS |
| **Preconditions:** | * CCS portal readiness to accommodate Summary Tables for Trip On board and Winterization static checklists. |
| **Post conditions:** | * Predefined static checklists for Trip On-Boarding and Winterization shall be displayed in CCS portal. * Trip on board and Winterization checklists shall be fetched from Reporting Data store. * Stored procedure availability to get the data from database. * Only Honda approved checklists to be displayed. |
| **Normal Flow:** | * Support Admin logs in to the CCS portal with valid credentials. * CCS portal validates the authentication of user role and allows log in. * Priorly defined On Board and Winterization checklists to be displayed in the CCS portal. * User selects any of the options Add/Edit/Deactivate checklist for On Board and Winterization feature. * On click of save the Checklist is updated. * Static checklists to be verified and approved by Honda. |
| **Data Metrics:** | * Number of times the user accesses On Board checklist. * Number of times the user accesses Winterization checklist. |
| **Exceptions:** | * **Connectivity**: If connectivity to Reporting Data store is lost; the stored procedure execution will fail and will resume once the connection is re-established. * **No Connectivity**: If internet connectivity is lost during the workflow, the device shows message “No internet connection. Try again later” |
| **Frequency of Use:** | * Based on the Support Admin user request for Static checklist management table in the CCS portal. |
| **Business Rules:** | * Static checklist management report template should adhere to Honda standard report template. |
| **Systems Impacted** | * CCS portal * Reporting Data store |
| **Definition of Done:** | * Static checklist management table data shall be displayed in CCS portal. * Necessary Stored procedures should be executed for Summary table creation. |

* + - 1. PGN list maintenance- criticality

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| [Use case](#C10) **ID** | C.2.6 |
| **Actor:** | Support Admin, Reporting Data store, HLM backend service, S3 bucket, PostgreSQL, OSS,TCU |
| **Preconditions:** | * CCS portal readiness to accommodate Summary Tables for PGN list. |
| **Post conditions:** | * List of PGN codes and its criticality shall be displayed in CCS portal. * PGN list shall be fetched from Reporting Data store. * Stored procedure availability to get the data from database. |
| **Normal Flow:** | * Support Admin logs in to the CCS portal with valid credentials. * CCS portal validates the authentication of user role and allows log in. * Priorly defined PGN list along with criticality indicator to be displayed in the CCS portal. * Support Admin shall Edit/Update/Delete PGN list for boats. * The modified PGN values shall be saved and updated in the TCU for all the applicable Boats. * PGN criticality checklist to be verified and approved by Honda. |
| **Data Metrics:** | * Number of times the Support Admin user accesses PGN list. |
| **Exceptions:** | * **Connectivity**: If connectivity to Reporting Data store is lost; the stored procedure execution will fail and will resume once the connection is re-established. * **No Connectivity**: If internet connectivity is lost during the workflow, the device shows message “No internet connection. Try again later” |
| **Frequency of Use:** | * Based on the user request for PGN list management table in the CCS portal. |
| **Business Rules:** | * PGN list management report template should adhere to Honda standard report template. |
| **Systems Impacted** | * CCS portal * Reporting Data store |
| **Definition of Done:** | * PGN list management table data shall be displayed in CCS portal. * Support personnel can Edit/Update/Delete PGN list for boats. * Necessary Stored procedures should be executed for Summary table creation. |

* + - 1. Template Management (Email template, SMS format etc.)

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| [Use case](#C10) **ID** | C.2.7 |
| **Actor:** | Support Admin, Reporting Data store, HLM backend service, S3 bucket, PostgreSQL, TCU |
| **Preconditions:** | * CCS portal readiness to accommodate Summary Tables for Template management for Email, Push notification, Mobile app inbox and SMS. |
| **Post conditions:** | * Templates for Email, Push notification, Mobile app inbox and SMS formats shall be displayed in CCS portal. * Sample formats for Email, Push notification, Mobile app inbox and SMS shall be fetched from Reporting Data store. * Stored procedure availability to get the data from database. |
| **Normal Flow:** | * Support Admin logs in to the CCS portal with valid credentials. * CCS portal validates the authentication of user role and allows log in. * Priorly defined and accepted templates for Email, Push notification, Mobile app inbox and SMS to be displayed in the CCS portal. * Email template shall indicate the structure of the Email to be used for sending Email alerts to HLM app users. * Push notification template shall indicate the structure of the Push notification to be used for sending Email alerts to HLM app users. * Mobile app inbox template shall indicate the structure of the Mobile app inbox to be used for sending Email alerts to HLM app users. * SMS template shall indicate the structure of the SMS to be used for sending SMS alerts to HLM app users. * Support Admin selects Upload Template for any of the features Email/SMS/Push Notification in Template Management tab. * On click of Save button the changes for Template are successfully updated. |
| **Data Metrics:** | * Number of times user accesses Email template. * Number of times user accesses Push notification template. * Number of times user accesses Mobile app inbox template. * Number of times user accesses SMS template. |
| **Exceptions:** | * **Connectivity**: If connectivity to Reporting Data store is lost; the stored procedure execution will fail and will resume once the connection is re-established. * **No Connectivity**: If internet connectivity is lost during the workflow, the device shows message “No internet connection. Try again later” |
| **Frequency of Use:** | * Based on the Support Admin user request for Template management table in the CCS portal. |
| **Business Rules:** | * Template management report should adhere to Honda standard report template. |
| **Systems Impacted** | * CCS portal * Reporting Data store |
| **Definition of Done:** | * Template management table data shall be displayed in CCS portal. * Necessary Stored procedures should be executed for Summary table creation. |

* + - 1. Sensor Management

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| [Use case](#C10) **ID** | C.2.8 |
| **Actor:** | Support Admin, Reporting Data store, HLM backend service, S3 bucket, PostgreSQL, TCU |
| **Preconditions:** | * CCS portal readiness to accommodate Sensor Management Tables for displaying TCU sensor parameters. |
| **Post conditions:** | * Sensor management data and its respective status for the TCU sensor parameters shall be displayed in CCS portal. * List of TCU sensor parameters and their status (active/inactive) shall be fetched from Reporting Data store. * Stored procedure availability to get the data from database. |
| **Normal Flow:** | * Support Admin logs in to the CCS portal with valid credentials. * CCS portal validates the authentication of user role and allows log in. * Priorly configured Sensor parameter values for the TCU to be displayed in the CCS portal. * Sensor parameter data supported by Boat and its corresponding status (active/inactive) to be displayed in the Summary table of CCS portal. |
| **Data Metrics:** | * Number of times Support Admin user accessed Sensor management table in the CCS portal. |
| **Exceptions:** | * **Connectivity**: If connectivity to Reporting Data store is lost; the stored procedure execution will fail and will resume once the connection is re-established. * **No Connectivity**: If internet connectivity is lost during the workflow, the device shows message “No internet connection. Try again later” |
| **Frequency of Use:** | * Based on the user request for Sensor management table in the CCS portal. |
| **Business Rules:** | * Sensor management report template should adhere to Honda standard report template. |
| **Systems Impacted** | * CCS portal * Reporting Data store |
| **Definition of Done:** | * Sensor management table data shall be displayed in CCS portal. * Necessary Stored procedures should be executed for Summary table creation. |

* + - 1. PII data Interface & Customer Support Agent View

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| [Use case](#C10) **ID** | C.2.9 |
| **Actor:** | Support Admin, Reporting Data store, HLM backend service, S3 bucket, PostgreSQL, TCU, Boat Owner/User |
| **Preconditions:** | * CCS portal readiness to accommodate summary tables for PII data and location history for Boat. |
| **Post conditions:** | * Boat owner PII data shall be displayed in CCS portal. * Option to delete location history of the Boat shall be provided. * Stored procedure availability to get the data from database. |
| **Normal Flow:** | * Support Admin logs in to the CCS portal with valid credentials. * CCS portal validates the authentication of user role and allows log in. * Customer Support agent view shall be displayed on CCS portal * Customer Support agent view shall display: * Boat profile * Boat Owner profile * Captain crew data of the Boat owner * Support personnel shall resolve customer queries and provide support using CCS portal. * PII data for selected App user to be displayed in CCS portal. * PII data includes all the data related to Boat owner such as personal profile, crew data, subscription package summary, Notifications enabled, Trips planned,   Boat(s) details, TCU & mapped PIN details, Sensor enabled for Boat(s). |
| **Data Metrics:** | * Number of times Support Admin user accessed PII data and Boat location history data summary tables in the CCS portal. * Based on the user request for Customer Support agent view summary table in the CCS portal. |
| **Exceptions:** | * **Connectivity**: If connectivity to Reporting Data store is lost, the stored procedure execution will fail and will resume once the connection is re-established. * **No Connectivity**: If internet connectivity is lost during the workflow, the device shows message “No internet connection. Try again later” |
| **Frequency of Use:** | * Based on the user request for Customer Support agent view summary table in the CCS portal. * Based on the Support Admin user request for PII data and Boat location history table in the CCS portal. |
| **Business Rules:** | * Customer Support agent view template should adhere to Honda standard report template. * PII and Location history management report template should adhere to Honda standard report template. |
| **Systems Impacted** | * CCS portal * Reporting Data store |
| **Definition of Done:** | * Customer Support agent view is displayed on CCS portal * Customer Support agent view displays: * Boat profile * Boat Owner profile * Captain crew data of the Boat owner * Boat owner PII data and Location history management table data shall be displayed in CCS portal. * Location history data allowed to be deleted with the help of support personnel. * Necessary Stored procedures should be executed for Summary table creation. |

* + - 1. TCU Serial & PIN management screen

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| [Use case](#C10) **ID** | C.2.11 |
| **Actor:** | Support Admin, Reporting Data store, HLM backend service, S3 bucket, PostgreSQL, TCU |
| **Preconditions:** | * CCS portal readiness to accommodate a webpage to enter TCU identification serial number and PIN data. |
| **Post conditions:** | * Option to enter TCU serial number and PIN data in a webpage navigated from CCS portal. * Stored procedure availability to get the data from database. * TCU identification and PIN data shall be displayed in CCS portal. |
| **Normal Flow:** | * Support Admin logs in to the CCS portal with valid credentials. * CCS portal validates the authentication of user role and allows log in. * Support Admin shall navigate to TCU Serial No and PIN updating web page from CCS portal. * TCU identification serial number and unique PIN list shall be uploaded to TCU Serial and PIN management table in CCS portal. * Support Admin shall be able to view the previously uploaded TCU and PIN details in the CCS portal. |
| **Data Metrics:** | * Number of times user accessed TCU Serial and PIN data table in the CCS portal. |
| **Exceptions:** | * **Connectivity**: If connectivity to Reporting Data store is lost; the stored procedure execution will fail and will resume once the connection is re-established. * **No Connectivity**: If internet connectivity is lost during the workflow, the device shows message “No internet connection. Try again later” |
| **Frequency of Use:** | * Based on the Support Admin user request for TCU Serial and PIN data table in the CCS portal. |
| **Business Rules:** | * TCU Serial and PIN data management report template should adhere to Honda standard report template. |
| **Systems Impacted** | * CCS portal * Reporting Data store |
| **Definition of Done:** | * TCU serial number data PIN management table data shall be displayed in CCS portal. * TCU serial number and PIN data is allowed to be added with the help of webpage. * Necessary Stored procedures should be executed for Summary table creation. |

* + - 1. Fleet user management / Onboarding

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| [Use case](#C10) **ID** | C.2.12 |
| **Actor:** | Support Admin, Reporting Data store, HLM backend service, S3 bucket, PostgreSQL, TCU |
| **Preconditions:** | * CCS portal readiness to accommodate Fleet portal Role management table. |
| **Post conditions:** | * Roles and respective permission for different Fleet portal users shall be displayed in CCS portal. * List of user roles and permissions shall be fetched from Reporting Data store. * Stored procedure availability to get the data from database. |
| **Normal Flow:** | * Support Admin logs in to the CCS portal with valid credentials. * CCS portal validates the authentication of user role and allows log in. * List of Honda defined and approved user roles to be displayed in the CCS portal. * Based on the permissions granted for the Support role, access the following features from CCS portal: * FOTA * Master Data management * PII * Feature management * If permission is denied, suitable warning message is displayed to the App user.  |  |  |  |  |  | | --- | --- | --- | --- | --- | | **Roles** | **FOTA** | **Master Data Mgmt** | **PII** | **Feature Mgmt** | | Support Admin |  | **X** |  | **X** | | Support Super Admin | **X** | **X** | **X** | **X** | |
| **Data Metrics:** | * Number of times Support Admin user accessed Fleet portal Role management table in the CCS portal. |
| **Exceptions:** | * **Connectivity**: If connectivity to Reporting Data store is lost; the stored procedure execution will fail and will resume once the connection is re-established. * **Email server does not work:** The report remains in Queue until the email server is available * **No Connectivity**: If internet connectivity is lost during the workflow, the device shows message “No internet connection. Try again later” |
| **Frequency of Use:** | * Based on the user request for Fleet portal Role management table in the CCS portal. |
| **Business Rules:** | * Fleet portal Role management report template should adhere to Honda standard report template. |
| **Systems Impacted** | * CCS portal * Reporting Data store |
| **Definition of Done:** | * Roles and respective permission for different Fleet portal users is displayed in CCS portal. |

* + - 1. Stolen boat re-activation

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| [Use case](#C10) **ID** | C.2.13 |
| **Actor:** | Support Admin, Reporting Data store, HLM backend service, S3 bucket, PostgreSQL, TCU, Boat Owner/User |
| **Preconditions:** | * CCS portal readiness to accommodate Stolen Boat Re-activation table. |
| **Post conditions:** | * Stolen Boat Re-activation shall be displayed from CCS portal to edit the Boat activation status back to normal after stolen boat is found. * Post re-activation boat data shall be displayed in the HLM app. * Stored procedure availability to get the data from database. |
| **Normal Flow:** | * Boat owner/user calls support team to report reactivation of their stolen boat. * Support Admin logs in to the CCS portal with valid credentials. * CCS portal validates the authentication of user role and allows log in. * Support Admin clicks on the View Boat data page for the respective boat reported. * Support Admin activates boat status back to Normal state. * After successful re-activation, user shall be able to receive boat data in HLM App. |
| **Data Metrics:** | * Number of times Support Admin user accessed Stolen Boat Re-activation table in the CCS portal. |
| **Exceptions:** | * **Connectivity**: If connectivity to Reporting Data store is lost; the stored procedure execution will fail and will resume once the connection is re-established. * **Email server does not work:** The report remains in Queue until the email server is available * **No Connectivity**: If internet connectivity is lost during the workflow, the device shows message “No internet connection. Try again later” |
| **Frequency of Use:** | * Based on the user request for Stolen Boat Re-activation table in the CCS portal. |
| **Business Rules:** | * Stolen Boat Re-activation management template should adhere to Honda standard report template. |
| **Systems Impacted** | * CCS portal * Reporting Data store |
| **Definition of Done:** | * Stolen Boat Re-activation is displayed from CCS portal. * Support personnel can edit the Boat activation status to ‘Activated’ after Boat owner has found stolen boat. * Post re-activation boat data is displayed in the HLM app. |

* 1. Admin Portal CMS Use cases
     1. Login (A.1.0)

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| **ID** | **Use Case** | **Feature** | **Use case description** |
| A.1.0 | Admin Login | [Sign in and authentication](#A11) | As a Honda Administrator, I should be able to login to Admin Portal with my Honda ID/email ID |
| [Logout](#A12) | As Admin Portal user, I should be able to logout of the Admin Portal. |
| User roles | As Honda Admin portal user, I should have responsibilities assigned to me to successfully perform the operations. |

* + - 1. Sign-in and Authentication & Authorization

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| **Release** | **Release 1.0** |
| **[Use case](#A10) ID** | **A.1.1** |
| **Actors:** | Admin, HLM Portal, Honda Authentication System (LDAP), NASA |
| **Preconditions:** | User shall have the URL of the Admin Portal |
| **Post conditions:** | User shall be navigated to the Dashboard Page of the Admin Portal. |
| **Normal Flow:** | The User Launches Admin Portal   1. User shall be navigated to the Login page of the portal 2. User shall enter the User ID/Email and password in the boxes provided on the Login page. 3. Portal shall validate the User ID/Email and password using Honda Authentication System. 4. If the user credential is valid and the user is authorized, then user shall be navigated to Dashboard Page. 5. The Dashboard Page shall have the following information and options    1. Registered name of the user    2. Title of the page    3. Outboard Usage Analysis    4. Customer Usage Analysis    5. Lifecycle Metrics    6. Boat/ Engine Health Report 6. The page shall the option to logout of the portal. 7. If the credentials are invalid, then user shall be displayed an error message,” Incorrect Username or Password” and shall remain on Login page. |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * Network Connectivity Lost - Login Page throws a server error “Connection Timeout. Try again” * Authentication Failure - Honda Authentication System takes more time than the acceptable time limit. An error message shall be shown to user. |
| **Frequency of Use:** | Always |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Systems Impacted** | Admin Portal, Honda Authentication System. |
| **Definition of Done:** | Authorized users should be able to login to the Admin Portal successfully |

* + - 1. Logout

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| **Release** | **Release 1.0** |
| [**Use case**](#A10) **ID** | **A.1.2** |
| **Actors:** | Admin, HLM Portal, Honda Authentication System (LDAP) |
| **Preconditions:** | User shall have the URL of the Admin Portal  User should be successfully authenticated by Honda Authentication System.  User should be an authorized user of the Admin Portal. |
| **Post conditions:** | User shall be redirected to the login page of the Admin Portal. |
| **Normal Flow:** | 1. The Admin Portal shall the option to logout of the portal. 2. User shall click the option available for logging out of the portal. 3. Portal shall clear the user’s session. 4. The user shall be redirected to the login page. 5. The use shall not be able to access any of the reports after logging out. |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * Network Connectivity Lost - Login Page throws a server error “Connection Timeout. Try again” * Logout Failure - Server takes more time than the acceptable time limit to clear session. An error message shall be shown to user. |
| **Frequency of Use:** | Always |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Systems Impacted** | * Admin Portal, Honda Authentication System. |
| **Definition of Done:** | * Logged in users should be able to logout from the Admin Portal successfully |

* + - 1. User Roles

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| **Release** | **Release 1.0** |
| [**Use case**](#A10) **ID** | **A.1.2** |
| **Actors:** | Admin, HLM Portal, Honda Authentication System (LDAP) |
| **Preconditions:** | User shall have the URL of the Admin Portal  User should be successfully authenticated by Honda Authentication System.  User should be an authorized user of the Admin Portal. |
| **Post conditions:** | User shall perform the operations as per the responsibilities. |
| **Normal Flow:** | The login user shall have role assigned from the Honda LDAP. Responsibilities shall be assigned to the roles as per the below configuration.   |  |  | | --- | --- | | **Users** | **Role from LDAP** | | User ID111 | CMS Admin | | User ID10 | T&C Approver | | User ID15 | Editor | | User ID14 | Approver | | User ID13 | User | | User ID2 | T&C Editor | | User ID 21 | Support Admin | | User ID 22 | Support Super Admin | | User ID 23 | Report user |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | **Roles** | **Upload** | | **Approve** | | **View Report** | | **T&C** | **Content** | **T&C** | **Content** | | CMS Admin | **X** | **X** | **X** | **X** | **X** | | T&C Approver |  |  | **X** |  |  | | Approver |  |  |  | **X** |  | | content Editor | **X** |  |  |  |  | | Editor |  | **X** |  |  |  | | Report User |  |  |  |  | **X** | |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * Network Connectivity Lost - Page throws a server error “Connection Timeout. Try again” |
| **Frequency of Use:** | Always |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Systems Impacted** | * Admin Portal, Honda Authentication System. |
| **Definition of Done:** | * User shall perform the operations as per the responsibilities. |

* + 1. Outboard Usage Analysis Metrics (A.2.0)

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| **ID** | **Use Case** | **Feature** | **Use case description** |
| A.2.0 | Outboard Usage Analysis Metrics | [Outboard Usage Analysis Metric Report Group](#A21) | As a Honda Administrator, I would like to view all reports related to Outboard Usage Analysis Metrics under a single group |
|  |  | [Engine Location by Horsepower](#A22) | As a Honda Administrator, I would like to view a report of engine locations and horsepower respectively. |
|  |  | [Geographical Area of Product](#A23) | As a Honda Administrator, I would like to view a report of products with their geographical area. |
|  |  | [Average Run Time by Horsepower](#A24) | As a Honda Administrator, I would like to view horsepower wise report on average run times of engine. |
|  |  | [PGN history](#A25) | As a Honda Administrator, I would like to view PGN History of the engines with warranty details of the product and the dealers respectively. |
|  |  | [Real Time Engine Data](#A26) | As a Honda Administrator, I would like to view a report of the below real time engine data of the boats to track engine health.   * Water temperature * Air temperature * Humidity |

* + - 1. Outboard Usage Analysis Metrics Report Group

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| **Release** | **Release 3.0** |
| [**Use case ID**](#A20) | **A.2.1** |
| **Actors:** | Honda Administrator, Honda Backend System |
| **Preconditions:** | User should be successfully authenticated by Honda Authentication System.  User should be an authorized user of the Admin Portal. |
| **Post conditions:** | User shall be able to view the Outboard Usage Analysis Reports. |
| **Normal Flow:** | 1. User launches the Admin Portal and successfully logs in to the portal. 2. User shall be navigated to the Dashboard Page. 3. Dashboard page shall have the link/ button to view the Outboard Usage Analysis Reports. 4. User shall click the link/ Button available on the Dashboard page 5. User shall be navigated to the Outboard Usage Analysis Reports page. 6. The page shall have options for viewing the following reports.    * 1. Engine location by horsepower      2. Geographical area of Product      3. Average run time by horsepower      4. PGN history      5. Real time engine data 7. User shall have the option to navigate back to the Dashboard page of the portal. 8. User shall have the option to logout of the portal. |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * + Network Connectivity- Page does not load or the page loads with network errors. The page should be refreshed.   + The page does not load with the expected look and feel. Cookies should be cleared, or page should be force refreshed to get the expected look and feel. |
| **Frequency of Use:** | Weekly |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Systems Impacted** | Honda Backend System, Honda Authentication System |
| **Definition of Done:** | User should be able to view the Outboard Usage Analysis Page and have access to navigate to the other reports. |

* + - 1. Engine Location by Horsepower

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| **Release** | **Release 3.0** |
| [**Use case**](#A20) **ID** | **A.2.2** |
| **Actors:** | Honda Administrator, Honda Backend System |
| **Preconditions:** | User should be successfully authenticated by Honda Authentication System.  User should be an authorized user of the Admin Portal.  User should be navigated to the Outboard Usage Analysis Page. |
| **Post conditions:** | User shall be able to view the Engine Location by Horsepower report. |
| **Normal Flow:** | 1. User shall click the “Engine Location by Horsepower” link/ Button available on the Outboard Usage Analysis Reports page. 2. User shall be navigated to the report. 3. The report shall show the report of engine locations and horsepower data respectively. 4. User shall be able to filter the report by selecting a value of horsepower. 5. User shall have the option to access the other reports in the same category 6. User shall have the option to navigate back to the Dashboard page of the portal. 7. User shall have the option to logout of the portal. |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * + Network Connectivity- Page does not load or the page loads with network errors. The page should be refreshed.   + The page does not load with the expected look and feel. Cookies should be cleared, or page should be force refreshed to get the expected look and feel.   + Unsupported browser type or browser version is used. The look and feel and certain functionality fail to work. |
| **Frequency of Use:** | Weekly |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Systems Impacted** | HLM App, Honda Backend System, Honda Authentication System |
| **Definition of Done:** | User should be able to view the Engine Horsepower Report and have access to navigate to the other reports. |

* + - 1. Geographical Area of Product

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| **Release** | **Release 3.0** |
| [**Use case**](#A20) **ID** | **A.2.3** |
| **Actors:** | Honda Administrator, Honda Backend System |
| **Preconditions:** | User should be successfully authenticated by Honda Authentication System.  User should be an authorized user of the Admin Portal.  User should be navigated to the Outboard Usage Analysis Page. |
| **Post conditions:** | User shall be able to view the Geographical Area of Product report. |
| **Normal Flow:** | 1. User shall click the “Geographical Area of Product report” link/ Button available on the Outboard Usage Analysis Reports page. 2. User shall be navigated to the report. 3. The report shall show the report of Products and Geographical areas respectively. 4. User shall be able to filter the report by selecting a value of Product. 5. User shall have the option to access the other reports in the same category 6. User shall have the option to navigate back to the Dashboard page of the portal. 7. User shall have the option to logout of the portal. |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * + Network Connectivity- Page does not load or the page loads with network errors. The page should be refreshed.   + The page does not load with the expected look and feel. Cookies should be cleared, or page should be force refreshed to get the expected look and feel.   + Unsupported browser type or browser version is used. The look and feel and certain functionality fail to work. |
| **Frequency of Use:** | Weekly |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Systems Impacted** | HLM App, Honda Backend System, Honda Authentication System |
| **Definition of Done:** | User should be able to view the Geographical Area of Product Report and have access to navigate to the other reports. |

* + - 1. Average run time by Horsepower Report.

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| **Release** | **Release 3.0** |
| [**Use case**](#A20) **ID** | **A.2.3** |
| **Actors:** | Honda Administrator, Honda Backend System |
| **Preconditions:** | User should be successfully authenticated by Honda Authentication System.  User should be an authorized user of the Admin Portal.  User should be navigated to the Outboard Usage Analysis Page. |
| **Post conditions:** | User shall be able to view the Average run time by Horsepower report. |
| **Normal Flow:** | 1. User shall click the “Average run time by Horsepower report” link/ Button available on the Outboard Usage Analysis Reports page. 2. User shall be navigated to the report. 3. The report shall show the report of horsepower wise report on average run times of engine. 4. User shall be able to filter the report by selecting a value of Horsepower. 5. User shall have the option to access the other reports in the same category 6. User shall have the option to navigate back to the Dashboard page of the portal. 7. User shall have the option to logout of the portal. |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * + Network Connectivity- Page does not load or the page loads with network errors. The page should be refreshed.   + The page does not load with the expected look and feel. Cookies should be cleared, or page should be force refreshed to get the expected look and feel.   + Unsupported browser type or browser version is used. The look and feel and certain functionality fail to work. |
| **Frequency of Use:** | Weekly |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Systems Impacted** | HLM App, Honda Backend System, Honda Authentication System |
| **Definition of Done:** | User should be able to view the Average run time by Horsepower Report and have access to navigate to the other reports. |

* + - 1. PGN History Report

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| **Release** | **Release 3.0** |
| **Use case ID** | **A.2.4** |
| **Actors:** | Honda Administrator, Honda Backend System |
| **Preconditions:** | User should be successfully authenticated by Honda Authentication System.  User should be an authorized user of the Admin Portal.  User should be navigated to the Outboard Usage Analysis Page. |
| **Post conditions:** | User shall be able to view the PGN History Report. |
| **Normal Flow:** | 1. User shall click the “PGN History report” link/ Button available on the Outboard Usage Analysis Reports page. 2. User shall be navigated to the report. 3. The report shall show the report PGN History of the engines with warranty details and dealers. 4. User shall have the option to access the other reports in the same category 5. User shall have the option to navigate back to the Dashboard page of the portal. 6. User shall have the option to logout of the portal. |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * + Network Connectivity- Page does not load or the page loads with network errors. The page should be refreshed.   + The page does not load with the expected look and feel. Cookies should be cleared, or page should be force refreshed to get the expected look and feel.   + Unsupported browser type or browser version is used. The look and feel and certain functionality fail to work. |
| **Frequency of Use:** | Weekly |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Systems Impacted** | HLM App, Honda Backend System, Honda Authentication System |
| **Definition of Done:** | User should be able to view the PGN History Report and have access to navigate to the other reports. |

* + - 1. Real Time Engine Data Report.

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| **Release** | **Release 3.0** |
| [**Use case**](#A20) **ID** | **A.2.5** |
| **Actors:** | Honda Administrator, Honda Backend System |
| **Preconditions:** | User should be successfully authenticated by Honda Authentication System.  User should be an authorized user of the Admin Portal.  User should be navigated to the Outboard Usage Analysis Page. |
| **Post conditions:** | User shall be able to view the Real Time Engine Data Report. |
| **Normal Flow:** | 1. User shall click the “Real Time Engine Data report” link/ Button available on the Outboard Usage Analysis Reports page. 2. User shall be navigated to the report. 3. The report shall show a report of the below real time engine data of the boats to track engine health.    * 1. Water temperature      2. Air temperature      3. Humidity 4. User shall have the option to access the other reports in the same category 5. User shall have the option to navigate back to the Dashboard page of the portal. 6. User shall have the option to logout of the portal. |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * + Network Connectivity- Page does not load or the page loads with network errors. The page should be refreshed.   + The page does not load with the expected look and feel. Cookies should be cleared, or page should be force refreshed to get the expected look and feel.   + Unsupported browser type or browser version is used. The look and feel and certain functionality fail to work. |
| **Frequency of Use:** | Weekly |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Systems Impacted** | HLM App, Honda Backend System, Honda Authentication System |
| **Definition of Done:** | User should be able to view the Real Time Engine Data Report and have access to navigate to the other reports. |

* + 1. Customer Usage Analysis- Engine Behaviour (A.3.0)

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| **ID** | **Use Case** | **Feature** | **Use case description** |
| A.3.0 | Customer Usage Analysis | [Engine Behaviour](file:///C:\Users\20065157\Desktop\HNA_Mobile%20App%20UseCases%20-%2004Apr.xlsx#RANGE!A31) | As a Honda Administrator, I would like to view a customer wise report of engine behaviour on the following aspects. |
|          Years in service |
|          Service History |

* + - 1. Engine Behaviour

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| **Release** | **Release 3.0** |
| **Use case ID** | **A.3.1** |
| **Actors:** | Honda Administrator, Honda Backend System |
| **Preconditions:** | User should be successfully authenticated by Honda Authentication System.  User should be an authorized user of the Admin Portal. |
| **Post conditions:** | User shall be able to view the Customer Usage Analysis Reports. |
| **Normal Flow:** | * + 1. User launches the Admin Portal and successfully logs in to the portal.     2. User shall be navigated to the Dashboard Page.     3. Dashboard page shall have the link/ button to view the Customer Usage Analysis Reports.     4. User shall click the link/ Button available on the Dashboard page     5. User shall be navigated to the Customer Usage Analysis Reports page.     6. The page shall show the Engine Behaviour Report. It is a customer wise report of engine behaviour on the following aspects.        1. Years in service        2. Service History     7. User shall have the option to navigate back to the Dashboard page of the portal.     8. User shall have the option to logout of the portal. |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * + Network Connectivity- Page does not load or the page loads with network errors. The page should be refreshed.   + The page does not load with the expected look and feel. Cookies should be cleared, or page should be force refreshed to get the expected look and feel. |
| **Frequency of Use:** | Weekly |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Systems Impacted** | Honda Backend System, Honda Authentication System |
| **Definition of Done:** | User should be able to view Customer Usage Analysis- Engine Behaviour Page and have access to navigate to the other reports. |

* + 1. Lifecycle Metrics (A.4.0)

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| **ID** | **Use Case** | **Feature** | **Use case description** |
| A.4.0 | Lifecycle Metrics | [Lifecycle Metrics Report Group](#A41) | As a Honda Administrator, I would like to view all reports related to Lifecycle Metrics under a single group |
| [Potential Customers](#A42) | As a Honda Administrator, I would like to view a service and feature wise report of customers eligible for service/ feature respectively. |
| [Captured Customers](#A43) | As a Honda Administrator, I would like to view report of number of users who already downloaded the HLM App |
| [Active Customers](#A44) | As a Honda administrator, I would like to view a monthly report of number of users who have used application at least once in past month with a breakdown for Power users Vs New users Vs Returning users. |
| As a Honda Administrator, I would like to view a feature wise report number of users who have used specific features for a given time period. This will help me to understand customer need better |
| [Lapsed Customers](#A45) | As a Honda Administrator, I would like to view a month wise report of number of Dormant users who have been inactive for each month |
| As a Honda Administrator, I would like to view a report of number of users who have been inactive for two to four months (Inactive Users) |
| As a Honda Administrator, I would like to view a report of number of users who have been inactive for more than five months (Lapsed User) |
| As a Honda Administrator, I would like to view a report of number of users who have uninstalled the HLM App |
| As a Honda Administrator, I would like to view a report of percentage of people still using out of the number of people signed up at a given Time (Cohort Analysis). |

* + - 1. Lifecycle Metrics Report Group

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| **Release** | **Release 3.0** |
| [**Use case**](#A40) **ID** | **A.4.1** |
| **Actors:** | Honda Administrator, Honda Backend System, HLM backend system |
| **Preconditions:** | * User should be successfully authenticated by Honda Authentication System. * User should be an authorized user of the Admin Portal. |
| **Post conditions:** | * User shall be able to view the Lifecycle Metrics Reports. |
| **Normal Flow:** | 1. User launches the Admin Portal and successfully logs in to the portal. 2. User shall be navigated to the Dashboard Page. 3. Dashboard page shall have the link/ button to view the Lifecycle Metrics Reports. 4. User shall click the link/ Button available on the Dashboard page 5. User shall be navigated to the Lifecycle Metrics Reports page. 6. The page shall have options for viewing the following reports.    * 1. Potential Customers      2. Captured Customers      3. Active Customers      4. Lapsed Customers      5. Feature Penetration      6. Usage Patterns      7. Frequency of usage      8. Quality 7. User shall have the option to navigate back to the Dashboard page of the portal. 8. User shall have the option to logout of the portal. |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * + Network Connectivity- Page does not load or the page loads with network errors. The page should be refreshed.   + The page does not load with the expected look and feel. Cookies should be cleared, or page should be force refreshed to get the expected look and feel. |
| **Frequency of Use:** | Weekly |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Systems Impacted** | * + Honda Backend System, Honda user authentication system (LDAP) |
| **Definition of Done:** | * + User should be able to view the Lifecycle Metrics Page and have access to navigate to the other reports. |

* + - 1. Potential Customers

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| **Release** | **Release 3.0** |
| [**Use case**](#A40) **ID** | **A.4.2** |
| **Actors:** | Honda Administrator, Honda Backend System, HLM backend system |
| **Preconditions:** | * User should be successfully authenticated by Honda Authentication System. * User should be an authorized user of the Admin Portal. * User should be navigated to the Lifecycle Metrics Page. |
| **Post conditions:** | * User shall be able to view the Potential Customers report. |
| **Normal Flow:** | 1. User shall click the “Potential Customers” link/ Button available on the Lifecycle Metrics Reports page. 2. User shall be navigated to the report. 3. The report shall show a service and feature wise report of customers eligible for service/ feature respectively. 4. User shall have the option to access the other reports in the same category 5. User shall have the option to navigate back to the Dashboard page of the portal. 6. User shall have the option to logout of the portal. |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * + Network Connectivity- Page does not load or the page loads with network errors. The page should be refreshed.   + The page does not load with the expected look and feel. Cookies should be cleared, or page should be force refreshed to get the expected look and feel.   + Unsupported browser type or browser version is used. The look and feel and certain functionality fail to work. |
| **Frequency of Use:** | Weekly |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Systems Impacted** | * + HLM App, Honda Backend System, Honda User Authentication System |
| **Definition of Done:** | * + User should be able to view the Potential Customers Report and have access to navigate to the other reports. |

* + - 1. Captured Customers

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| **Release** | **Release 3.0** |
| [**Use case**](#A40) **ID** | **A.4.3** |
| **Actors:** | * Honda Administrator, Honda Backend System, HLM backend system |
| **Preconditions:** | * User should be successfully authenticated by Honda Authentication System. * User should be an authorized user of the Admin Portal. * User should be navigated to the Lifecycle Metrics Page. |
| **Post conditions:** | * User shall be able to view the Captured Customers report. |
| **Normal Flow:** | 1. User shall click the “Captured Customers” link/ Button available on the Lifecycle Metrics Reports page. 2. User shall be navigated to the report. 3. The page shall show a report of number of users who already downloaded the HLM App. 4. User shall have the option to access the other reports in the same category 5. User shall have the option to navigate back to the Dashboard page of the portal. 6. User shall have the option to logout of the portal. |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * + Network Connectivity- Page does not load or the page loads with network errors. The page should be refreshed.   + The page does not load with the expected look and feel. Cookies should be cleared, or page should be force refreshed to get the expected look and feel.   + Unsupported browser type or browser version is used. The look and feel and certain functionality fail to work. |
| **Frequency of Use:** | Weekly |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Systems Impacted** | HLM App, Honda Backend System, Honda Authentication System |
| **Definition of Done:** | User should be able to view the Captured Customers Report and have access to navigate to the other reports. |

* + - 1. Active Customers

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| **Release** | **Release 3.0** |
| [**Use case**](#A40) **ID** | **A.4.4** |
| **Actors:** | Honda Administrator, Honda Backend System, HLM backend system |
| **Preconditions:** | User should be successfully authenticated by Honda Authentication System.  User should be an authorized user of the Admin Portal.  User should be navigated to the Lifecycle Metrics Page. |
| **Post conditions:** | User shall be able to view the Active Customers report. |
| **Normal Flow:** | 1. User shall click the “Active Customers” link/ Button available on the Lifecycle Metrics Reports page. 2. User shall be navigated to the report. 3. The page shall show the following reports.    * 1. Monthly report of number of users who have used application at least once in past month with a breakdown for Power users Vs New users Vs Returning users.      2. Feature wise report number of users who have used specific features for a given time period. 4. User shall have the option to access the other reports in the same category 5. User shall have the option to navigate back to the Dashboard page of the portal. 6. User shall have the option to logout of the portal. |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * + Network Connectivity- Page does not load or the page loads with network errors. The page should be refreshed.   + The page does not load with the expected look and feel. Cookies should be cleared, or page should be force refreshed to get the expected look and feel.   + Unsupported browser type or browser version is used. The look and feel and certain functionality fail to work. |
| **Frequency of Use:** | Weekly |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Systems Impacted** | HLM App, Honda Backend System, Honda Authentication System |
| **Definition of Done:** | User should be able to view the Active Customers Report and have access to navigate to the other reports. |

* + - 1. Lapsed Customers

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| **Release** | **Release 3.0** |
| [**Use case**](#A40) **ID** | **A.4.5** |
| **Actors:** | Honda Administrator, Honda Backend System, HLM backend system |
| **Preconditions:** | * User should be successfully authenticated by Honda Authentication System. * User should be an authorized user of the Admin Portal. * User should be navigated to the Lifecycle Metrics Page. |
| **Post conditions:** | * User shall be able to view the Lapsed Customers report. |
| **Normal Flow:** | 1. User shall click the “Lapsed Customers” link/ Button available on the Lifecycle Metrics Reports page. 2. User shall be navigated to the report. 3. The page shall show the following reports.    * 1. Month wise report of number of Dormant users who have been inactive for each month      2. Report of number of users who have been inactive for two to four months (Inactive Users)      3. Report of number of users who have been inactive for more than five months (Lapsed User)      4. Report of number of users who have uninstalled the HLM App.      5. Report of percentage of people still using out of the number of people signed up at a given Time (Cohort Analysis). 4. User shall have the option to access the other reports in the same category 5. User shall have the option to navigate back to the Dashboard page of the portal. 6. User shall have the option to logout of the portal. |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * + Network Connectivity- Page does not load or the page loads with network errors. The page should be refreshed.   + The page does not load with the expected look and feel. Cookies should be cleared, or page should be force refreshed to get the expected look and feel.   + Unsupported browser type or browser version is used. The look and feel and certain functionality fail to work. |
| **Frequency of Use:** | Weekly |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Systems Impacted** | HLM App, Honda Backend System, Honda Authentication System |
| **Definition of Done:** | User should be able to view the Lapsed Customers Report and have access to navigate to the other reports. |

* + 1. Feature Usage Deep Dive Metrics (A.5.0)

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| **ID** | **Use Case** | **Feature** | **Use case description** |
| A.4.0 | Feature Usage Deep Dive Metrics | [Feature Penetration](#A46) | As a Honda Administrator, I would like to view a feature wise report of number of users of that specific feature. |
| As a Honda Administrator, I would like to view a feature wise report of number of unique users of that specific feature. |
| [Usage Patterns](#A48) | As a Honda Administrator, I would like to view a feature wise report of times of day a specific feature is being used. |
| As a Honda Administrator, I would like to view a feature wise report of times of week and times of year a specific feature is being used. |
| As a Honda Administrator, I would like to view a report of number of sessions in total. |
| As a Honda Administrator, I would like to view a report of average number of sessions per person. |
| As a Honda Administrator, I would like to view a report of average session length. |
| Frequency of usage | As a Honda Administrator, I would like to view a user wise report of average uses per month. |
| Quality | As a Honda Administrator, I would like to view a feature wise report of number of errors occurred while using a feature |

* + - 1. Feature Penetration

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| **Release** | **Release 3.0** |
| [**Use case**](#A40) **ID** | **A.5.1** |
| **Actors:** | Honda Administrator, Honda Backend System, HLM backend system |
| **Preconditions:** | * User should be successfully authenticated by Honda Authentication System. * User should be an authorized user of the Admin Portal. * User should be navigated to the Lifecycle Metrics Page. |
| **Post conditions:** | * User shall be able to view the Feature Penetration report. |
| **Normal Flow:** | 1. User shall click the “Feature Penetration” link/ Button available on the Lifecycle Metrics Reports page. 2. User shall be navigated to the report. 3. The page shall show the following reports.    * 1. Feature wise report of number of users of that specific feature.      2. Feature wise report of number of unique users of that specific feature. 4. User shall have the option to access the other reports in the same category 5. User shall have the option to navigate back to the Dashboard page of the portal. 6. User shall have the option to logout of the portal. |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * + Network Connectivity- Page does not load or the page loads with network errors. The page should be refreshed.   + The page does not load with the expected look and feel. Cookies should be cleared, or page should be force refreshed to get the expected look and feel.   + Unsupported browser type or browser version is used. The look and feel and certain functionality fail to work. |
| **Frequency of Use:** | Weekly |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Systems Impacted** | * HLM App, Honda Backend System, Honda Authentication System |
| **Definition of Done:** | * User should be able to view the Feature Penetration Report and have access to navigate to the other reports. |

* + - 1. Usage Patterns

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| **Release** | **Release 3.0** |
| [**Use case**](#A40) **ID** | **A.5.2** |
| **Actors:** | Honda Administrator, Honda Backend System |
| **Preconditions:** | * User should be successfully authenticated by Honda Authentication System. * User should be an authorized user of the Admin Portal. * User should be navigated to the Lifecycle Metrics Page. |
| **Post conditions:** | * User shall be able to view the Usage Patterns report. |
| **Normal Flow:** | 1. User shall click the “Usage Patterns” link/ Button available on the Lifecycle Metrics Reports page. 2. User shall be navigated to the report. 3. The page shall show the following reports.    * 1. Feature wise report of times of day a specific feature is being used.      2. feature wise report of times of week and times of year a specific feature is being used.      3. Report of number of sessions in total.      4. Report of average number of sessions per person.      5. Report of average session length. 4. User shall have the option to access the other reports in the same category 5. User shall have the option to navigate back to the Dashboard page of the portal. 6. User shall have the option to logout of the portal. |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * + Network Connectivity- Page does not load or the page loads with network errors. The page should be refreshed.   + The page does not load with the expected look and feel. Cookies should be cleared, or page should be force refreshed to get the expected look and feel.   + Unsupported browser type or browser version is used. The look and feel and certain functionality fail to work. |
| **Frequency of Use:** | Weekly |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Systems Impacted** | * HLM App, Honda Backend System, Honda Authentication System |
| **Definition of Done:** | * User should be able to view the Usage Patterns Report and have access to navigate to the other reports. |

* + - 1. Frequency of Usage

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| **Release** | **Release 3.0** |
| [**Use case**](#A40) **ID** | **A.5.3** |
| **Actors:** | Honda Administrator, Honda Backend System, HLM backend system |
| **Preconditions:** | * User should be successfully authenticated by Honda Authentication System. * User should be an authorized user of the Admin Portal. * User should be navigated to the Lifecycle Metrics Page. |
| **Post conditions:** | * User shall be able to view the Frequency of Usage report. |
| **Normal Flow:** | 1. User shall click the “Frequency of Usage” link/ Button available on the Lifecycle Metrics Reports page. 2. User shall be navigated to the report. 3. The page shall show a user wise report of average uses per month. 4. User shall have the option to access the other reports in the same category 5. User shall have the option to navigate back to the Dashboard page of the portal. 6. User shall have the option to logout of the portal. |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * + Network Connectivity- Page does not load or the page loads with network errors. The page should be refreshed.   + The page does not load with the expected look and feel. Cookies should be cleared, or page should be force refreshed to get the expected look and feel.   + Unsupported browser type or browser version is used. The look and feel and certain functionality fail to work. |
| **Frequency of Use:** | Weekly |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Systems Impacted** | * HLM App, Honda Backend System, Honda Authentication System |
| **Definition of Done:** | * User should be able to view the Frequency of Usage Report and have access to navigate to the other reports. |

* + - 1. Quality

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| **Release** | **Release 3.0** |
| [**Use case**](#A40) **ID** | **A.5.4** |
| **Actors:** | Honda Administrator, Honda Backend System, HLM backend system |
| **Preconditions:** | * User should be successfully authenticated by Honda Authentication System. * User should be an authorized user of the Admin Portal. * User should be navigated to the Lifecycle Metrics Page. |
| **Post conditions:** | User shall be able to view the Quality report. |
| **Normal Flow:** | 1. User shall click the “Quality” link/ Button available on the Lifecycle Metrics Reports page. 2. User shall be navigated to the report. 3. The page shall show a Feature wise report of number of errors occurred while using a feature. 4. User shall have the option to access the other reports in the same category 5. User shall have the option to navigate back to the Dashboard page of the portal. 6. User shall have the option to logout of the portal. |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * + Network Connectivity- Page does not load or the page loads with network errors. The page should be refreshed.   + The page does not load with the expected look and feel. Cookies should be cleared, or page should be force refreshed to get the expected look and feel.   + Unsupported browser type or browser version is used. The look and feel and certain functionality fail to work. |
| **Frequency of Use:** | Weekly |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Systems Impacted** | HLM App, Honda Backend System, Honda Authentication System |
| **Definition of Done:** | User should be able to view the Quality Report and have access to navigate to the other reports. |

* + 1. Boat/Engine Health Reports (A.6.0)

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| **ID** | **Use Case** | **Feature** | **Use case description** |
| A.5.0 | Boat/Engine Health report | [Boat/Engine Health Report group](#A51) | As a Honda Administrator, I would like to view all reports related to boat health under a single group |
|  |  | [Delivery Statistics](#A52) | As a Honda Administrator, I would like to view a report of number of VINs sent. |
|  |  |  | As a Honda Administrator, I would like to view a report of number of VINs Excluded |
|  |  | [Usage Patterns](#A52) | As a Honda Administrator, I would like to view a report of number of times the Boat/ Engine Health report is Opened- Open Rate |
|  |  |  | As a Honda Administrator, I would like to view a report of number of clicks on the Boat/ Engine Health report - Click Rate |
|  |  | [Cohort Analysis](#A54) | As a Honda Administrator, I would like to view a user wise & yearly report of average number of emails opened by specific user. |

* + - 1. Boat/Engine Health Report group

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| **Release** | **Release 1.0** |
| [**Use case**](#A50) **ID** | **A.6.1** |
| **Actors:** | Honda Administrator, Honda Backend System |
| **Preconditions:** | * User should be successfully authenticated by Honda Authentication System. * User should be an authorized user of the Admin Portal. |
| **Post conditions:** | * User shall be able to view the Boat/Engine Health Reports. |
| **Normal Flow:** | 1. User launches the Admin Portal and successfully logs in to the portal. 2. User shall be navigated to the Dashboard Page. 3. Dashboard page shall have the link/ button to view the Boat/Engine Health Reports. 4. User shall click the link/ Button available on the Dashboard page 5. User shall be navigated to the Boat/Engine Health Reports page. 6. The page shall have options for viewing the following reports.    * 1. Delivery Statistics      2. Usage Patterns      3. Cohort Analysis 7. User shall have the option to navigate back to the Dashboard page of the portal. 8. User shall have the option to logout of the portal. |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * + Network Connectivity- Page does not load or the page loads with network errors. The page should be refreshed.   + The page does not load with the expected look and feel. Cookies should be cleared, or page should be force refreshed to get the expected look and feel. |
| **Frequency of Use:** | Weekly |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Systems Impacted** | * Honda Backend System, Honda Authentication System |
| **Definition of Done:** | * User should be able to view the Boat/Engine Health Reports Page and have access to navigate to the other reports. |

* + - 1. Delivery Statistics

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| **Release** | **Release 1.0** |
| [**Use case**](#A50) **ID** | A.6.2 |
| **Actors:** | Honda Administrator, Honda Backend System, HLM backend system |
| **Preconditions:** | * User should be successfully authenticated by Honda Authentication System. * User should be an authorized user of the Admin Portal. * User should be navigated to the Boat/ Engine Health Report Page. |
| **Post conditions:** | * User shall be able to view the Delivery Statistics report. |
| **Normal Flow:** | 1. User shall click the “Delivery Statistics” link/ Button available on the Boat/Engine Health Report page. 2. User shall be navigated to the report. 3. The page shall show the following reports.    * 1. Report of number of VINs sent.      2. Report of number of VINs excluded. 4. User shall have the option to access the other reports in the same category 5. User shall have the option to navigate back to the Dashboard page of the portal. 6. User shall have the option to logout of the portal. |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * + Network Connectivity- Page does not load or the page loads with network errors. The page should be refreshed.   + The page does not load with the expected look and feel. Cookies should be cleared, or page should be force refreshed to get the expected look and feel.   + Unsupported browser type or browser version is used. The look and feel and certain functionality fail to work. |
| **Frequency of Use:** | Weekly |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Systems Impacted** | * HLM App, Honda Backend System, Honda Authentication System |
| **Definition of Done:** | * User should be able to view the Delivery Statistics Report and have access to navigate to the other reports. |

* + - 1. Usage Patterns

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| **Release** | **Release 1.0** |
| [**Use case**](#A50) **ID** | **A.6.3** |
| **Actors:** | Honda Administrator, Honda Backend System, HLM backend system |
| **Preconditions:** | * User should be successfully authenticated by Honda Authentication System. * User should be an authorized user of the Admin Portal. * User should be navigated to the Boat/ Engine Health Report Page. |
| **Post conditions:** | * User shall be able to view the Usage Patterns report. |
| **Normal Flow:** | 1. User shall click the “Usage Patterns” link/ Button available on the Boat/Engine Health Report page. 2. User shall be navigated to the report. 3. The page shall show the following reports.    * 1. Report of number of times the Boat/ Engine Health report is Opened- Open Rate.      2. Report of number of clicks on the Boat/ Engine Health report - Click Rate. 4. User shall have the option to access the other reports in the same category 5. User shall have the option to navigate back to the Dashboard page of the portal. 6. User shall have the option to logout of the portal. |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * + Network Connectivity- Page does not load or the page loads with network errors. The page should be refreshed.   + The page does not load with the expected look and feel. Cookies should be cleared, or page should be force refreshed to get the expected look and feel.   + Unsupported browser type or browser version is used. The look and feel and certain functionality fail to work. |
| **Frequency of Use:** | Weekly |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Systems Impacted** | * HLM App, Honda Backend System, Honda Authentication System |
| **Definition of Done:** | * User should be able to view the Usage Patterns Report and have access to navigate to the other reports. |

* + - 1. Cohort Analysis

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| **Release** | **Release 3.0** |
| [**Use case**](#A50) **ID** | **A.6.4** |
| **Actors:** | Honda Administrator, Honda Backend System |
| **Preconditions:** | User should be successfully authenticated by Honda Authentication System.  User should be an authorized user of the Admin Portal.  User should be navigated to the Boat/ Engine Health Report Page. |
| **Post conditions:** | User shall be able to view the Cohort Analysis report. |
| **Normal Flow:** | 1. User shall click the “Cohort Analysis” link/ Button available on the Boat/Engine Health Report page. 2. User shall be navigated to the report. 3. The page shall show a user wise & yearly report of average number of emails opened by specific user. 4. User shall have the option to access the other reports in the same category 5. User shall have the option to navigate back to the Dashboard page of the portal. 6. User shall have the option to logout of the portal. |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * + Network Connectivity- Page does not load or the page loads with network errors. The page should be refreshed.   + The page does not load with the expected look and feel. Cookies should be cleared, or page should be force refreshed to get the expected look and feel.   + Unsupported browser type or browser version is used. The look and feel and certain functionality fail to work. |
| **Frequency of Use:** | Weekly |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Systems Impacted** | HLM App, Honda Backend System, Honda Authentication System |
| **Definition of Done:** | User should be able to view the Cohort Analysis Report and have access to navigate to the other reports. |

* + 1. CMS (A.7.0)

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| **ID** | **Use Case** | **Feature** | **Use case description** |
| A.6.0 | CMS | Content for Learn and Tips | As a Admin Portal user, I should be able to upload the content to CMS module of the admin portal. |
| Content for T&C’s | As Admin Portal user, I should be able to upload the T&C’s to the CMS Module of the Admin Portal. |

* + - 1. Content for Learn & Tips

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| **Release** | **Release 3.0** |
| [**Use case**](#A50) **ID** | **A.7.1** |
| **Actors:** | Honda Administrator, Honda Backend System |
| **Preconditions:** | User should be successfully authenticated by Honda Authentication System.  User should be an authorized user of the Admin Portal. |
| **Post conditions:** | User shall be able to upload the content and get it approved by the approvers. |
| **Normal Flow:** | 1. User of the Admin Portal shall upload the links to the portal 2. The following fields shall be captured 3. Title, Category 4. Digital Content :Rich text box/ Videos/ picture & plain text. There can be Size restrictions on videos and Picture. 5. Status <Draft/ Approved/ Rejected> 6. Active <True/ False> 7. Created by, Created Date 8. Approved by, Approved Date 9. The uploaded content shall be routed to an Approver user of the Admin Portal. 10. Just email notifications shall be configured and enabled. 11. The approver can see list of contents shared for approval. 12. Verify the content on the portal 13. Approve/ Reject- Workflow is closed. Item can’t be edited but can be made inactive. Approved content shall flow to mobile DB. The approved content shall be available to the Mobile App. |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * + Network Connectivity- Page does not load or the page loads with network errors. The page should be refreshed.   + The page does not load with the expected look and feel. Cookies should be cleared, or page should be force refreshed to get the expected look and feel.   + Unsupported browser type or browser version is used. The look and feel and certain functionality fail to work. |
| **Frequency of Use:** | Weekly |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Systems Impacted** | HLM App, Honda Backend System, Honda Authentication System |
| **Definition of Done:** | User should be able to view the Cohort Analysis Report and have access to navigate to the other reports. |

* + - 1. Content for T&C’s

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| **Release** | **Release 1.0** |
| [**Use case**](#A50) **ID** | **A.7.2** |
| **Actors:** | Honda Administrator, Honda Backend System |
| **Preconditions:** | User should be successfully authenticated by Honda Authentication System.  User should be an authorized user of the Admin Portal. |
| **Post conditions:** | User shall be able to upload the T&C’s and get it approved by the approvers. |
| **Normal Flow:** | 1. User of the Admin Portal shall upload the links to the portal 2. The following fields shall be captured 3. Title, Category 4. Upload T&C’s document. 5. Status <Draft/ Approved/ Rejected> 6. Active <True/ False> 7. Created by, Created Date 8. Approved by, Approved Date 9. The uploaded content shall be routed to an Approver user of the Admin Portal. 10. Just email notifications shall be configured and enabled. 11. The approver can see list of contents shared for approval. 12. Verify the content on the portal 13. Approve/ Reject- Workflow is closed. Item can’t be edited but can be made inactive. Approved content shall flow to mobile DB. The approved content shall be available to the Mobile App. 14. The latest active T&C’s shall be displayed to the user. |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * + Network Connectivity- Page does not load or the page loads with network errors. The page should be refreshed.   + The page does not load with the expected look and feel. Cookies should be cleared, or page should be force refreshed to get the expected look and feel.   + Unsupported browser type or browser version is used. The look and feel and certain functionality fail to work. |
| **Frequency of Use:** | Weekly |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Systems Impacted** | HLM App, Honda Backend System, Honda Authentication System |
| **Definition of Done:** | User should be able to view the Cohort Analysis Report and have access to navigate to the other reports. |

* 1. Fleet Management Use cases
     1. Fleet Club Registration (F.1.0)

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| **ID** | **Use Case** | **Feature** | **Use case description** |
| **F.1.0** | Registration | [Fleet Owner Registration](#F11) | As a Fleet owner, I would like to register my Fleet/Boat club in HondLink Marine Fleet portal, so that I can add my fleet and monitor their performance |

* + - 1. Fleet Owner Registration

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| **Release** | **Release 2.0** |
| [**Use Case**](#F10) **ID** | **F.1.1** |
| **Actors:** | Boat club owner/User, Backend HLM System (Universal registration Service), HLM Fleet portal application, Honda backend system – “HIDAS” |
| **Preconditions:** | Boat Club Owner has the URL for Fleet portal and is a new user to the portal. |
| **Post conditions:** | Boat Club Owner will be registered to Honda Fleet portal and gets access to the features of the Portal |
| **Normal Flow:** | 1. Open the Fleet portal in the supported browser.  2. User clicks on the link “Register Now” at the bottom of the screen  5. Fleet portal shall invoke the web view of “Honda Universal Registration” services for user to register with Honda.  6. User shall save to complete the registration process.  7. User can now login with the Honda ID and password that was created. |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * No connectivity: During registration if internet connectivity is lost, the registration comes to a halt. |
| **Frequency of Use:** | * Each Boat Club Owner uses this feature only once |
| **Business Rules:** | NA |
| **Systems Impacted** | * Fleet Portal * HLM Backend system (Universal Registration Services) * Honda backend system (HIDAS) |
| **Definition of Done:** | * Boat Club Owner will get registered to fleet portal successfully and gets access to portal features |

* + 1. Login (F.2.0)

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| **ID** | **Use Case** | **Feature** | **Use case description** |
| F.2.0 | Login | [Sign in and authentication](#F21) | As a Fleet owner, I should be able to login to Fleet Portal with my Honda ID |
| [Forgot Password](#F22) | As a Fleet owner, I should have an option to reset/change my Password using registered Email ID/ Honda ID |
| As a Fleet owner, I should be able to retrieve my Honda ID using registered Email ID |

* + - 1. Sign in and authentication

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| **Release** | **Release 2.0** |
| [**Use case**](#F20) **ID** | **F.2.1** |
| **Actors:** | Boat club owner/User, Backend HLM System, HLM Fleet portal application, Honda backend system – “HIDAS” |
| **Preconditions:** | * User has the URL for Fleet portal * User has registered or given access and has valid credentials |
| **Post conditions:** | * User is successfully logged in to fleet portal and can access the features based on his role * Admin user shall have access to all features in the web app |
| **Normal Flow:** | 1. User types the HTTPS URL on the browser to get the login page 2. Login page components: Email id/Honda Id, Password 3. Restrictions on the password field are as follows 4. Cut, Copy and Paste options are disabled on password fields 5. Password field is a special text field that displays a special character to prevent “shoulder surfing” 6. The entered Honda ID/Email address and password will validate through HIdAS API and provide the result 7. Password Valid 8. User successfully logs in and gets his dashboard 9. The dashboard color theme shall be specific to the fleet club 10. Password Invalid 11. application displays "Invalid Password retry" message 12. only 3 tries are provided for login 13. For valid user backend fetches user role and enables access to web app features based on his role |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * **User Account Locked:** If user enters incorrect login credentials 3 consecutive times, Fleet portal displays “Boat Club Owner/Staff Member Account Locked, contact Administrator for assistance”. * **Press cancel button**: Tap on cancel button for login and forgot password option cancels the operation and will not achieve the use case goal. * **Error retrieving the data**: Problem occurred retrieving the data from Honda backend (HIDAS) use case ends and appropriate error message shown to retry or try after some time. * **Problem in internet connection:** If user does not have the internet connectivity then no connectivity message by the browser comes up on the screen |
| **Frequency of Use:** | * Every time he uses the app on a fresh browser. |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Systems Impacted** | * + HLM Fleet Portal   + HLM Backend System   + Honda Backed System (HIDAS) |
| **Definition of Done:** | * + User logs in successfully and the web app access is available. In case his credentials are not valid, an error message – “Invalid credentials” will be displayed.   + User should be able to reset their password successfully |

* + - 1. Forgot Password

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| **Release** | **Release 2.0** |
| **[Use Case](#F20) ID** | **F.2.2** |
| **Actors:** | Fleet club owner/ User, HLM Fleet portal application, HLM backend, HIDAS |
| **Preconditions:** | * User has the URL for Fleet portal * User has registered as Honda marine customer |
| **Post conditions:** | * User shall be able to reset the forgotten password |
| **Normal Flow:** | 1. User can reset password by tapping forgot password in login screen 2. Upon tapping the forgot password link, UR page is opened. 3. User can retrieve the password using UR page. |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * + **Problem in internet connection**: If user does not have the internet connectivity then no connectivity message by the browser comes up on the screen |
| **Frequency of Use:** | * Whenever user forgets the password. |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Systems Impacted** | * HLM Fleet Portal * Honda Backed System (HIDAS) |
| **Definition of Done:** | * User should be able to reset their password successfully * User should be able to login to the app with new password from next time. |

* + 1. Service Management (F.3.0)

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| **ID** | **Use Case** | **Feature** | **Use case description** |
| F.3.0 | Service Management | [Service Incentives (Service Coupons)](#F31) | As OEM/Dealer and fleet portal user, I would like to provide Service coupons (e-coupons) or incentives to my customers, so that I build customer loyalty and ensure he comes back when in need |
| [OEM/Dealer as a Customer (B2B)](#F33) | As OEM/Dealer and Fleet portal user, I would like to get Honda offered discounts and offers, so that I can extend it to my customers who bought Honda parts/accessories |
| As OEM/Dealer and Fleet portal user, I would like to get notified on incentives and offers from Honda to dealers on the web portal, so that I do not miss them |
| As OEM/Dealer and fleet portal user I would like to be notified on performance awards or recognition from Honda to dealers, so that I know where I stand as a dealer |
| [Improved Service Management](#F33) (Warranty/Parts) with Honda leveraging the Customer Registration | As OEM/Dealer and fleet portal user, I would like to be notified on the service offers from Honda for Warranty, so that I can extend the same to my customers who make new purchases |
| As OEM/Dealer and fleet portal user, I would like to be notified on the service offers from Honda for any of the parts and accessories, so that I can extend the same to my customers |
| [IN Portal](#F34) (Interactive Portal) | As OEM/Dealer I would like to access IN Portal while I am logged into the Fleet Portal |
| [Cost to Service on Warranty/Parts](#F35) | As an OEM/Dealer, I would like to get report on Cost to Service for the warranty services for all my Honda sales |
| [Customer Campaigns, Cross-sales](#F36) | As OEM/Dealer and fleet portal user, I would like to campaign the parts and accessories to my customers, so that I improve my customer base as well as sell Honda parts and accessories |
| [Boat Health Report](#F37) – Engine Health Report | As a fleet portal user, I would like to get the health report of all my boats every month. |

* + - 1. Service Incentives (Service Coupons)

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| **Release** | **Future Backlog** |
| [**Use Case**](#F30) **ID** | **F.3.1** |
| **Actors:** | OEM/Dealer and user of fleet portal, Fleet portal backend, HLM backend, Honda backend SAP, Honda backend Salesforce |
| **Preconditions:** | * User is OEM/Dealer * User is registered to HLM Fleet portal * User has valid credentials * User role permits him for Service management feature of the portal |
| **Post conditions:** | * User is notified on successful upload of e-coupons * User is notified on sending of e-coupons to customers |
| **Normal Flow:** | 1. User successfully logs into the Fleet portal 2. User chooses Service management from the menu 3. User may want to send service coupons in the form of e-coupons for the following 4. Free inspection at multiple points 5. Free battery test and inspection 6. Free engine test 7. User enters service coupon details    1. Coupon name    2. Service offer description    3. Validity period (from and to)    4. User uploads image if any 8. User selects the customers to whom the coupons are sent 9. User clicks submit to distribute e-coupons to customers through e-mail 10. Honda gets notification |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * **Email server not working:** If the backend SMTP server has a problem, email sending may not be sent immediately, user is notified “Server error, emails will be queued and sent after a while” * **Upload issues**: If selected image cannot be uploaded, message “upload failed” will displayed to user. * **Problem in internet connection:** If user does not have the internet connectivity then a browser specific “no connectivity” message appears on the page |
| **Frequency of Use:** | * Only when user wants to push offers |
| **Business Rules:** | NA |
| **Systems Impacted** | * + HLM Fleet Portal   + HLM Backend System   + Honda Backed System (HIDAS) |
| **Definition of Done:** | * + User can upload e-coupons   + User is sends e-coupons to his customers |

Alternate Flow(s) – Service Incentives (Service Coupons)

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| **ID#** | **Use case name** | **Use case description** |
| Service management-01 | Service management Service Incentives (Service Coupons) | Alternate for step 5: After step 4, user can choose to update his offers in Honda backend system-ECRM so that the Honda notification schedulers push the offers automatically |

* + - 1. OEM/Dealer as a Customer (B2B)

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| **Release** | **Release 3.0** |
| [**Use Case**](#F30) **ID** | **F.3.2** |
| **Actors:** | OEM/Dealer and user of fleet portal, Fleet portal backend, HLM backend, Honda backend SAP, Honda backend Salesforce |
| **Preconditions:** | * User is OEM/Dealer * User is registered to HLM Fleet portal * User has valid credentials * User role permits him for Service management feature of the portal |
| **Post conditions:** | * User is notified on end-customer offers, service offers to dealers and awards and rewards to dealers |
| **Normal Flow:** | 1. User successfully logs into the Fleet portal 2. **Honda offers to end-customers**    1. User clicks on notifications menu and looks for Honda notifications    2. User gets a list of offers from Honda in near future    3. User selects customers of Honda from his list and publishes the selected offer to customers via email 3. **Honda service offers to Dealers**    1. User clicks on notifications menu and looks for Honda offers to dealers    2. User gets a list of offers to dealers in near future 4. **Honda awards and rewards to OEM/Dealers**    1. User clicks on notifications menu and looks for Honda awards to dealers    2. User gets the award list published by Honda |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * **Email server not working:** If the backend SMTP server has a problem, email sending may not be sent immediately, user is notified “Server error, emails will be queued and sent after a while” * **Problem in internet connection:** If user does not have the internet connectivity then a browser specific “no connectivity” message appears on the page |
| **Frequency of Use:** | * Only when user wants to push offers |
| **Business Rules:** | NA |
| **Systems Impacted** | * + HLM Fleet Portal   + HLM Backend System   + Honda Backed System (HIDAS) |
| **Definition of Done:** | * + User can upload e-coupons   + User is sends e-coupons to his customers |

Alternate Flow(s) – OEM/Dealer as a Customer (B2B)

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| **ID#** | **Use case name** | **Use case description** |
| Service management -01 | Service management OEM/Dealer as a Customer(B2B) | Alternate for step 3: Honda offers to its OEM/Dealers appear on Fleet user Dashboard and catches user attention quickly  Alternate for step 4: Honda awards or rewards to its OEM/Dealers appear on Fleet user Dashboard and catches user attention quickly |

* + - 1. Improved Service Management (Warranty/Parts) with Honda leveraging the Customer Registration

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| **Release** | **Release 3.0** |
| [**Use Case**](#F30) **ID** | **F.3.3** |
| **Actors:** | OEM/Dealer and user of fleet portal, Fleet portal backend, HLM backend, Honda backend SAP, Honda backend Salesforce, Honda ECRM |
| **Preconditions:** | * User is OEM/Dealer * User is registered to HLM Fleet portal * User has valid credentials * User role permits him for Service management feature of the portal |
| **Post conditions:** | * User is notified on successful upload of e-coupons * User is notified on sending of e-coupons to customers |
| **Normal Flow:** | 1. User successfully logs into the Fleet portal 2. **Honda Warranty offers for newly registered customers**    1. User clicks on notifications menu and looks for Honda notifications    2. User gets a list of Warranty offers from Honda for newly registered customers.    3. User updates his backend database for future use    4. User also gets the Honda broacher on warranty offers through email 3. **Honda warranty offers on parts and accessories**    1. User clicks on notifications menu and looks for Honda offers on parts and accessories for customers newly registered    2. User updates his backed system for future use    3. User also gets the Honda broacher on warranty offers through email |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * **Problem in internet connection:** If user does not have the internet connectivity then a browser specific “no connectivity” message appears on the page * **Honda backend system connection lost:** If backend system connectivity is not available, the use case ends with a message “There seems to be a problem with backend system, retry after some time” |
| **Frequency of Use:** |  |
| **Business Rules:** | NA |
| **Systems Impacted** | * + HLM Fleet Portal   + HLM Backend Systems |
| **Definition of Done:** | * + User is able to view the list of Warranty offers |

* + - 1. IN Portal (Interactive Portal)

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| **Release** | **Release 3.0** |
| **[Use Case](#F30) ID** | **F.3.4** |
| **Actors:** | OEM/Dealer and user of fleet portal, Fleet portal backend, HLM backend, Honda backend SAP, Honda backend IN Portal |
| **Preconditions:** | * User is OEM/Dealer * User is registered to HLM Fleet portal * User has valid credentials * User role permits him for Service management feature of the portal |
| **Post conditions:** | * User works on IN Portal * Upon exit of IN Portal user returns back to the Fleet portal web page from where he left |
| **Normal Flow:** | 1. User successfully logs into the Fleet portal 2. User clicks on “IN Portal access” from the menu 3. Fleet Portal saves the current state of fleet portal web page that is open 4. Opens “IN Portal” in browser (or new browser window) with auto login using users IN Portal credentials 5. Any updates made on IN Portal shall not reflect or impact the Fleet portal 6. User logs out of IN Portal to return to Fleet Portal 7. If user does not do any activity on IN Portal for more than 2 minutes, session on IN Portal expires and user is logged out of IN Portal to return back to Fleet Portal |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * **Problem in internet connection:** If user does not have the internet connectivity then a browser specific “no connectivity” message appears on the page * **Honda backend IN Portal connection is lost:** If backend system connectivity is not available, the use case ends with a message “There seems to be a problem with backend system, retry” |
| **Frequency of Use:** |  |
| **Business Rules:** | NA |
| **Systems Impacted** | * + HLM Fleet Portal   + HLM Backend system   + Honda backend IN Portal |
| **Definition of Done:** | * + User is able to login automatically and open and work on IN Portal |

* + - 1. Cost to Service on Warranty/Parts

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| **Release** | **Release 3.0** |
| [**Use Case**](#F30) **ID** | **F.3.5** |
| **Actors:** | OEM/Dealer and user of fleet portal, Fleet portal backend, HLM backend, Honda backend systems -SAP, IN Portal, Salesforce |
| **Preconditions:** | * User is OEM/Dealer * User is registered to HLM Fleet portal * User has valid credentials * User role permits him for Service management feature of the portal |
| **Post conditions:** | * User is notified on Cost to Service report generated |
| **Normal Flow:** | 1. User successfully logs into the Fleet portal 2. User clicks on Service Management menu 3. User clicks on Reports 4. User selects Cost to Service on Warranty parts report 5. User gets to view and download the Cost to Service report |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * **Problem in internet connection:** If user does not have the internet connectivity then a browser specific “no connectivity” message appears on the page * Honda backend connection is lost: If backend system connectivity is not available, the use case ends with a message“ There seems to be a problem with backend system, retry after some time” |
| **Frequency of Use:** |  |
| **Business Rules:** | NA |
| **Systems Impacted** | * + HLM Fleet Portal   + HLM Backend system   + Honda backend systems |
| **Definition of Done:** | * + User is able to view the Cost to Service report |

* + - 1. Customer Campaigns, Cross-sales

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| **Release** | **Future Backlog** |
| [**Use Case**](#F30) **ID** | **F.3.6** |
| **Actors:** | OEM/Dealer and user of fleet portal, Fleet portal backend, HLM backend, |
| **Preconditions:** | * User is OEM/Dealer * User is registered to HLM Fleet portal * User has valid credentials * User role permits him for Service management feature of the portal |
| **Post conditions:** | * User is notified once the campaigns are sent out |
| **Normal Flow:** | 1. User successfully logs into the Fleet portal 2. User chooses Service management from the menu 3. User may want to add campaigns and cross sales 4. User selects Campaign 5. User enters service Campaign details like    1. Campaign name    2. Campaign description and cross sales strategy    3. Validity period (from and to)    4. User uploads image if any 6. Saves the campaign 7. Selects customers region wise and publishes the campaign through email |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * **Email server not working:** If the backend SMTP server has a problem, email sending may not be sent immediately, user is notified “Server error, emails will be queued and sent after a while” * **Upload issues**: If selected image cannot be uploaded, message “upload failed” will displayed to user. * **Problem in internet connection:** If user does not have the internet connectivity then a browser specific “no connectivity” message appears on the page |
| **Frequency of Use:** |  |
| **Business Rules:** | NA |
| **Systems Impacted** | * + HLM Fleet Portal   + HLM Backend system   + Honda backend systems |
| **Definition of Done:** | * + User is able to view the Cost to Service report |

* + - 1. Boat Health Report – Engine Health Report

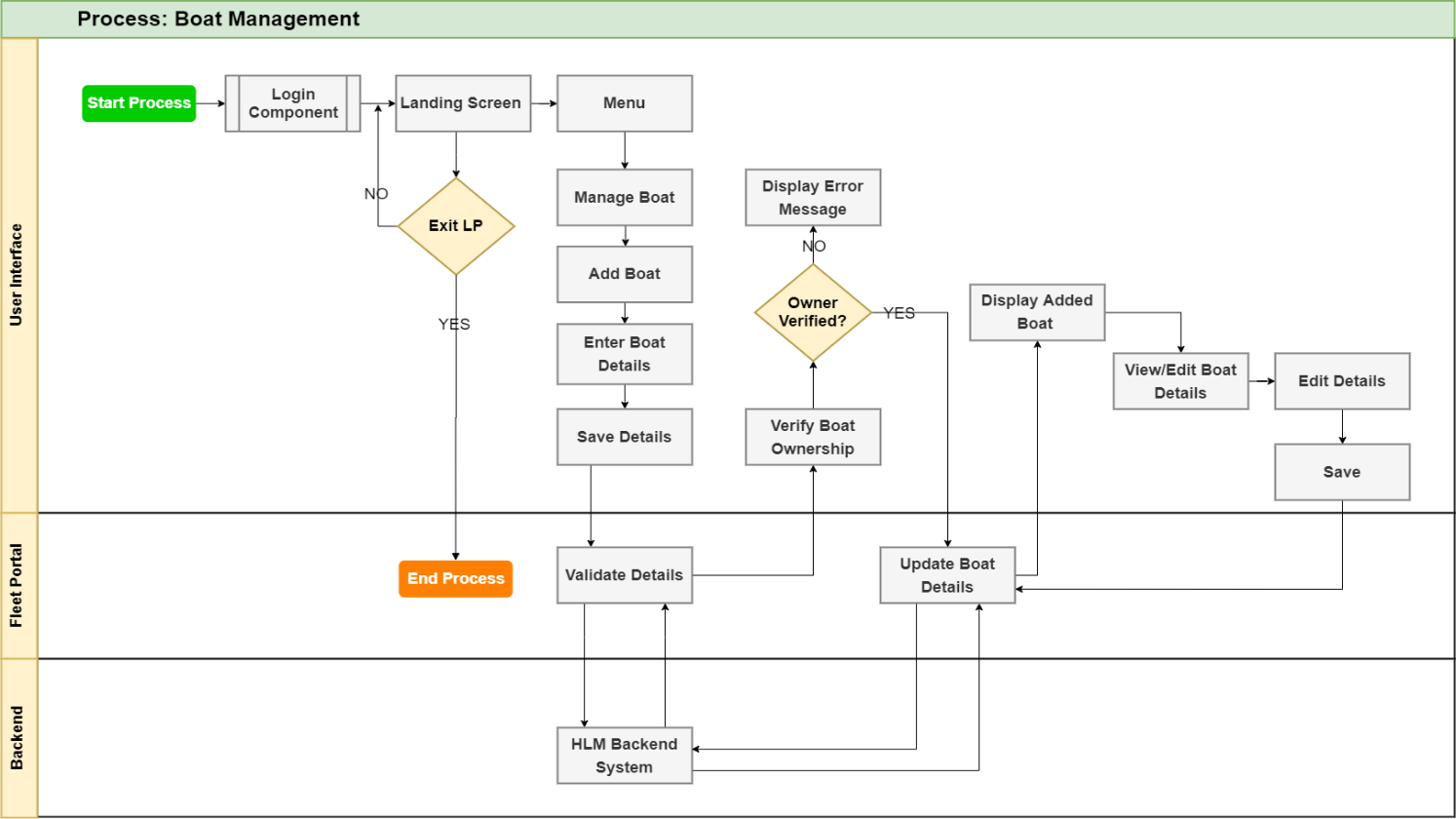
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| **Release** | **Release 3.0** |
| [**Use Case**](#F30) **ID** | **F.3.7** |
| **Actors:** | OEM/Dealer and user of fleet portal, Fleet portal backend, HLM backend, |
| **Preconditions:** | * User is OEM/Dealer * User is registered to HLM Fleet portal * User has valid credentials * User role permits him for Service management feature of the portal |
| **Post conditions:** | * User is notified on Boat health |
| **Normal Flow:** | 1. User successfully logs into the Fleet portal 2. User chooses Service management from the menu 3. User clicks on Boat Health Report 4. User selects the boat for which he wants the report 5. Fleet portal generates the boat health report as on date 6. User may view or download the boat health report |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * **Email server not working:** If the backend SMTP server has a problem, email sending may not be sent immediately, user is notified “Server error, emails will be queued and sent after a while” * **Upload issues**: If selected image cannot be uploaded, message “upload failed” will displayed to user. * **Problem in internet connection:** If user does not have the internet connectivity then a browser specific “no connectivity” message appears on the page |
| **Frequency of Use:** |  |
| **Business Rules:** | NA |
| **Systems Impacted** | * + HLM Fleet Portal   + HLM Backend system   + Honda backend systems |
| **Definition of Done:** | * + User is able to view the Cost to Service report |

Alternate Flow(s) – OEM/Dealer as a Customer (B2B)

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| **ID#** | **Use case name** | **Use case description** |
| Service management -01 | Boat Health Report | Alternate for step 1-6: User can view the boat health on the dashboard by hover and click the boat image.  Other alternate is that User may receive monthly health report of the boat. |

* + 1. Boat Management (F.4.0)

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| **ID** | **Use Case** | **Feature** | **Use case description** |
| F.4.0 | Boat management | [Add a Boat](#F41) | As a Fleet portal owner, I should be able to add/update/delete boat and TCU details. |
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* + - 1. Add a Boat

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| **Release** | **Release 2.0** |
| [**Use Case**](#F40) **ID** | **F.4.1** |
| **Actors:** | Fleet Portal User, HLM Fleet Portal Web application, Honda Backend system |
| **Preconditions:** | * + User has registered in Fleet Portal   + User logs in successfully to Fleet Portal |
| **Post conditions:** | * + User should be able to add and manage the boat details |
| **Normal Flow:** | * User clicks on Manage Boat in the Menu * User selects “Add Boat” * User will be given option to enter the details like Hull no, Boat name, Engine Serial number, model, TCU details, sensor details, boat related document * Upon clicks on save button user entered details will be validated with the backend system and prompt user to verify the ownership * Once ownership verified correct, boat data will be added to the backend system. * Boat Owner taps on Boat name to view/edit boat by providing required inputs |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * + **Entering incorrect details:** If user enter incorrect details about boat or TCU, while ownership verification the details will be shown incorrect and user get the error message.   + **Press cancel button:** Tap on cancel button for login and forgot password option cancels the operation and will not achieve the use case goal.   + **Problem in internet connection:** If user does not have the internet connectivity in the mobile application throw the error message to enable the internet connection.   + **Error retrieving the data:** Problem occurred retrieving the data from Honda backend system regarding TCU and ownership details will cause use case to end and appropriate error message shown to retry or try after some time. |
| **Frequency of Use:** | * Need basis (as and when user want to add or swap the TCU) |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Systems Impacted** | * HLM fleet portal app * HLM Database * Honda backend system |
| **Definition of Done:** | * User should be able to add the new boat details |

* + 1. Dashboard (F.5.0)

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| **ID** | **Use Case** | **Feature** | **Use case description** |
| F.5.0 | Dashboard | [Manage My Fleet](#F51) | As a Boat Club / Fleet Owner, I should be able to manage my fleet so that I can add, edit, delete and notify ownership change. |
| [Fleet View](#F53) | As a Boat Club / Fleet Owner, I should be able to Filter & view my fleet assets on map view so that I can get a geographical information of my fleet position along with their status & health |
| As a Boat Club / Fleet Owner, I should be able to Filter & view my fleet assets in tabular format so that I can get my fleet status & health in one table that can be exported or printed easily |
| [Notifications](#F53) | As a Boat Club Owner, I should be able to get notification, alerts & promotional offers on my dashboard for my quick attention |

* + - 1. Manage My Fleet

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| **Release** | **Release 2.0** |
| [**Use case**](#F50) **ID** | **F.5.1** |
| **Actors:** | Boat club owner / Fleet owner, HLM Backend services, HLM Database, HIDAS |
| **Preconditions:** | * Fleet owner should be a registered user * Fleet owner should be able to login successfully |
| **Post conditions:** | * Fleet owner should be able to manage his/her fleet by using features like add, edit, delete boat * Fleet owner should be able to notify the HLM admin services on the ownership change. |
| **Normal Flow:** | 1. Fleet owner can manage his fleet by  * Fleet owner logs into the fleet portal * Fleet owner can view his Fleet and their subscription details * Fleet owner can add new boat by clicking on the Add boat and enroll the boat to his fleet * Fleet owner can update the boat details by modifying the existing boat record. * Fleet owner can delete the boat from his fleet. * Fleet owner can also update HLM admin services about the ownership change of his boat. * Once the ownership of the boat is notified the system automatically deletes boat from the fleet and terminates the subscription on the boat |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * Error while adding boat, If the boat is already mapped with another account. This could typically happen when there is an owner change and new owner tries to add the boat to his fleet and the system still has the old owner reference |
| **Frequency of Use:** | * When fleet owner needs to modify his fleet assets |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Systems Impacted** | * Fleet Portal * Honda Backend System – HIDAS * HLM backend system – Admin Portal * TCU * Platform Services |
| **Definition of Done:** | User to be able to   * Login successfully * Should be able to add, edit or delete the boat(s) associated with his fleet * Should be able to notify the ownership changes |

* + - 1. Manage Subscription

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| **Release** | **Future Backlog** |
| [**Use case**](file:///D:\Honda%20Link%20Marine\July\SAD%20and%20BRD%20Updates\Revert%20BRD\To%20compare_BRD.docx#F50) **ID** | **F.5.2** |
| **Actors:** | Boat club owner / Fleet owner, HLM Backend services, HLM Database, HIDAS, TCU, Platform services |
| **Preconditions:** | * Fleet owner should be a registered user * Fleet owner should be able to login successfully |
| **Post conditions:** | * User should be able to enroll his boat(s) * User should be able to manage the subscription on his boat(s) * User should be able to receive boat data from his boat |
| **Normal Flow:** | 1. User can manage the subscription as per the below workflow  * User can view his fleet / boat details * User can add, modify or terminate the subscription by selecting a boat and clicking on manage subscription  1. Adding new subscription package  * User selects the subscription package to be activated * User clicks on make payment option & provides payment details * HLM backend services process payment & activates subscription on the TCU * On successful payment, user gets access to data & services  1. Change subscription package:  * User selects the boat subscription to edit. * User can choose different subscription package to activate * User clicks on make payment option & provides payment details * HLM backend services process payment & activates subscription on the TCU * On successful payment, user gets access to data & services  1. Terminate Subscription Package:  * User selects the subscription package to be terminated * User clicks on terminate package option * Portal prompts to reconfirm the delete operation * On confirmation the selected package will be terminated immediately. * The subscription will also get terminated when the ownership of the boat is changed |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * Payment Processing Error: While processing the payment transaction there is a chance of transaction failure as the payment processing involves multiple systems like TCU, platform services, bank services, payment gateway service, HLM backend services etc. In case of any such failure user shall be notified about the failure and guided to retry it again. * Subscription Termination Refund: There will not be any refund flow as the subscription is terminated immediately. |
| **Frequency of Use:** | * When fleet owner needs to manage subscription – add, modify or terminate |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Systems Impacted** | * Fleet Portal * Honda Backend System – HIDAS * HLM backend system – Admin Portal * TCU * Platform Services |
| **Definition of Done:** | User to be able to   * Login successfully * Should be able to add, modify or terminate the subscription |

* + - 1. Fleet View

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| **Release** | **Release 2.0** |
| [**Use case**](#F50) **ID** | **F.5.3** |
| **Actors:** | Boat club owner / Fleet owner, HLM Backend services, HIDAS |
| **Preconditions:** | * Fleet owner should be a registered user * Fleet owner should be able to login successfully * Fleet owner has associated the boats in his fleet |
| **Post conditions:** | * Fleet owner should be able to filter & view his/her fleet on map view so that user can get a geographical information of fleet position along with their status & health * Fleet owner should be able to filter & view his/her fleet in tabular format so that user can get fleet status & health in one table that can be exported or printed easily |
| **Normal Flow:** | 1. Fleet owner can view the overall fleet geographically on map  * User selects map view tab to view all the boats/fleets on the map * User hover on each boat to view the boat name and its current status (Running, Trouble and Stopped) * User monitors boat status in detail by hovering on individual boat and clicking “view more detail” option to view Boat engine health parameters (Engine, Security, Battery etc.) and weather detail parameters (Wind, Temperature etc.) of the boat. * User clicks on Filter by option to filter out boats based on the input parameters such as Boat Name, Status and Location.  1. Fleet owner can view the overall fleet in a tabular format  * User selects tabular view tab to view all the boats/fleets in a tabular format * User gets all the boat engine health parameters (Engine, Security, Battery etc.) and weather detail parameters (Wind, Temperature etc.) of the boat in a tabular format * User clicks on Filter by option to filter out table content based on the input parameters such as Boat Name, Status and Location. * User can also export the table into excel report |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * The satellite map view can identify the position of the boats, but the orientation of the boat will not be accurate. Suggestion is to show the position as boat icon and not drawing the picture of the boat |
| **Frequency of Use:** | * Every time when fleet owner logs in he his taken to the fleet view dashboard |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Systems Impacted** | * Fleet Portal * Honda Backend System – HIDAS * HLM backend system * TCU * Platform Services |
| **Definition of Done:** | User to be able to   * Login successfully * Should be able view the fleet in satellite view of map with ability to see information on mouse hoover and even more detail by clicking on view more details * Should be able view the fleet details in tabular format which can be exported into an excel report |

* + - 1. Notifications

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| **Release** | **Release 2.0** |
| [**Use case**](#F50) **ID** | **F.5.4** |
| **Actors:** | Boat club owner / Fleet owner, HLM Backend services, HIDAS, TCU |
| **Preconditions:** | * Fleet owner should be a registered user * Fleet owner should be able to login successfully * Fleet owner has enrolled the boats to his fleet |
| **Post conditions:** | * Fleet owner should be able to get notification & promotional offers on the dashboard screen for quick action & attention |
| **Normal Flow:** | 1. Fleet owner should be able to  * Get on-screen notification as reminders & alerts * User should be able to get reminders like subscription renewal etc. * User should be able to get promotional offers |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * Speed alert responsiveness – As the speed data needs to be fetched from the TCU via HLM backend services, the responsiveness of the alerts highly depends connectivity. Any break in the connectivity would delay the alerts been shown on the portal |
| **Frequency of Use:** | * Every time user login to fleet portal. |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Systems Impacted** | * Fleet Portal * Honda Backend System – HIDAS * HLM backend system * TCU * Platform Services |
| **Definition of Done:** | User to be able to   * Login successfully * should be able to get notification & promotional offers on the dashboard screen for quick action & attention |

* + 1. Geofence (F.6.0)

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| **ID** | **Use Case** | **Feature** | **Use case description** |
| **F.6.0** | Geofence | [Create Geofence](#F61) | As a Boat Club / Fleet Owner, I should be able to create (name, fence shape, alert(s)) geofence & apply them on my boat(s) to monitor the boat movement in & out of the selected geofence. |
| [Update Geofence](#F62) | As a Boat Club / Fleet Owner, I should be able to Update (name, fence shape, alert(s)) the existing geofence & apply them on my boat(s) to monitor the boat movement in & out of the selected geofence. |
| [Delete Geofence](#F63) | As a Boat Club / Fleet Owner, I should be able to delete the existing geofence. |
| [Monitor Fleet Geofence](#F64) | As a Boat Club Owner, I would like to receive alert so that I can know movement of my boat, when a boat is leaving dock, when it is coming back to dock, when it goes off track or getting into restricted water zones |

* + - 1. Create Geofence

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| **Release** | **Future Backlog** |
| [**Use case**](#F60) **ID** | **F.6.1** |
| **Actors:** | Boat club owner / Fleet owner, HLM Backend services, TCU Services, Cloud Platform Services, HIDAS |
| **Preconditions:** | * Fleet owner should be a registered user * Fleet owner should be able to login successfully |
| **Post conditions:** | * Fleet owner should be able to apply the created geofence on his boat(s) * Fleet owner should be able to view the geofence on the map view |
| **Normal Flow:** | 1. Fleet owner to create new geofence entry  * User clicks on the Add geofence feature * User can select the either Controlled (Keep In) or Restricted (Keep Out) as geofence category * User can choose type as circle to plot the geofence * If user chooses the circle view, he can only control the width of the geofence by choosing the desired radius of the circle * User can provide name for the created geofence * User can save the created geofence |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * Overlapping geofence – if user creates overlapping geofence can create conflict alerts |
| **Frequency of Use:** | * Need based (when a geofence need to be created) |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Systems Impacted** | * Fleet Portal * HLM Backend database * HIDAS * TCU * Platform Services * HLM backend service |
| **Definition of Done:** | **User to be able to**   * Login Successful * Create new geofence – Controlled & Restricted * Select Circular to create geofence type * Save geofence |

Alternate Flow(s) – Create Geofence

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| **ID#** | **Use case name** | **Use case description** |
| 01 | Export / Import Geofence | User can also be able to import the predefined geofence available for a specific Marina or to a specific route.  User should also be able to publish his geofence so that other users can import it.  **Note**: This alternative flow is not in current scope of LTTS. However, this could be added in product backlog for future enhancements. |

* + - 1. Update Geofence

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| **Release** | **Future Backlog** |
| [**Use case**](#F60) **ID** | **F.6.2** |
| **Actors:** | Boat club owner / Fleet owner, HLM Backend services, TCU Services, Cloud Platform Services, HIDAS |
| **Preconditions:** | * Fleet owner should be a registered user * Fleet owner should be able to login successfully * Fleet owner has enrolled the boats to his fleet * Fleet has existing geofence entries that can be updated |
| **Post conditions:** | * User should be able to edit & update the existing geofence * User should be able to apply the updated geofence during a boat trip * User should be able to view the geofence on the map view |
| **Normal Flow:** | 1. User can update the geofence by:  * User clicks on the existing geofence entry to edit * User can change the geofence to - Controlled (Keep In) or Restricted (Keep Out) * User can select the type to circle to plot the geofence * If user chooses to edit circle view, he can control the width of the geofence by choosing the desired radius * User can change the name for the updated geofence * User can save the updated geofence |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * Overlapping geofence – if user creates overlapping geofence can create conflict alerts |
| **Frequency of Use:** | Need Basis (When a geofence need to be Updated) |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Systems Impacted** | * Fleet Portal * HLM Backend database * HIDAS * TCU * Platform Services * HLM backend service |
| **Definition of Done:** | **User to be able to**   * Login Successful * Updated existing geofence – Controlled & Restricted * Should be able to change geofence category (Controlled, Restricted) and geofence type (Circular) * Save updated geofence * Apply, monitor & receive alerts |

* + - 1. Delete Geofence

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| **Release** | **Future Backlog** | |
| [**Use case**](#F60) **ID** | **F.6.3** | |
| **Actors:** | Boat club owner / Fleet owner, HLM Backend services, HIDAS |
| **Preconditions:** | * Fleet owner should be a registered user * Fleet owner should be able to login successfully * Fleet owner has enrolled the boats to his fleet * Fleet has existing geofence entries that can be deleted |
| **Post conditions:** | * User should be able to delete the existing geofence |
| **Normal Flow:** | 1. Delete Geofence Flow:  * User selects the exiting geofence entry to delete (Multiple entries can be selected). * User clicks on delete option. * Application asks user to reconfirm the delete operation. * User confirms to delete * Portal deletes geofencing record from system. |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * Deleting an ongoing trip Geofence entry – Portal allows deletion of an ongoing or active geofence applied on a trip. user would lose all the online alerts & notification associated with the deleted geofence record. |
| **Frequency of Use:** | Need Basis (when a geofence records need to be deleted) |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Systems Impacted** | * Fleet Portal * HLM Backend database * HIDAS * HLM backend service |
| **Definition of Done:** | **User to be able to**   * Login * Delete existing geofence record(s) * Verify that the records are no more in the system |

* + - 1. Monitor Fleet Geofence

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| **Release** | **Future Backlog** |
| [**Use case**](#F60) **ID** | **F.6.4** |
| **Actors:** | Boat club owner / Fleet owner, HLM Backend services, TCU Services, Cloud Platform Services, HIDAS |
| **Preconditions:** | * Fleet owner should be a registered user * Fleet owner should be able to login successfully * Fleet owner has enrolled the boats to his fleet * Fleet has existing geofence entries that can be applied on a trip and monitored |
| **Post conditions:** | * User should be able to apply the updated geofence during a boat trip * User should be able to receive alert when a boat is leaving dock, when it is coming back to dock, when it goes off track or getting into restricted water zones * User should be able to view boat trip details in Portal, so that user know when, where and number of times the boat breached the geofence |
| **Normal Flow:** | 1. Fleet user can apply & monitor the geofence on his boat during the trip by:  * User can view the created geofence in the portal * User shall be able to apply it on the boat trip * Based on the selected geofence user shall receive alert when a boat is leaving dock, when it is coming back to dock, when it goes off track or getting into restricted water zones * User should be able to view boat trip details in Portal, so that user know when, where and number of times the boat breached the geofence * Portal should also show the geofence on the map vs current position of the boat |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * Overlapping geofence – if user creates overlapping geofence can create conflict alerts |
| **Frequency of Use:** | Applied during a trip to monitor the geofence alerts |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Systems Impacted** | * Fleet Portal * HLM Backend database * HIDAS * TCU * Platform Services * HLM backend service |
| **Definition of Done:** | **User to be able to**   * Login Successful * apply & monitor the geofence on his boat during the trip * User should be able to receive Marina, off-track & off-route based alerts * User should be able to view boat trip details in Portal |

* + 1. Speed Alerts (F.7.0)

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| **ID** | **Use Case** | **Feature** | **Use case description** |
| F.7.0 | Speed Alerts | [Alerts & Notification](#M43) | As a Boat Club / Fleet Owner, I should receive alert when my boat(s) goes beyond the defined speed limit, so that I can get a notification. |
| [Create Speed Alert & Monitor](#M41) | As a Boat Club / Fleet Owner, I should be able to create controlled speed alerts for my boat(s) to monitor my boat speed. |
| [Update Speed Alert & Monitor](#M42) | As a Boat Club / Fleet Owner, I should be able to Update controlled speed alerts for my boat(s) to monitor my boat speed |
| [Delete/Disable speed Alert](#M43) | As a Boat Club / Fleet Owner, I should be able to delete controlled speed alerts associated with my boat(s) |

* + - 1. Speed Alerts & Notification

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| **Release** | **Release 3.0** |
| [**Use case**](#M40) **ID** | **F.7.1** |
| **Actors:** | Boat club owner / Fleet owner, HLM Backend services, TCU Services, Cloud Platform Services, HIDAS |
| **Preconditions:** | * Fleet owner should be a registered user * Fleet owner should be able to login successfully |
| **Post conditions:** | * Fleet owner should be able to view the notifications whenever the selected boats cross the defined speed limit |
| **Normal Flow:** | * User shall navigate to list of boats in the Fleet portal * User has created the Speed Alert * User will receive speed alerts on the App when the boat speed crosses the set threshold speed. |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * Speed alert responsiveness – As the boat speed data needs to be fetched from the HLM backend services, the responsiveness of the alerts highly depends on connectivity. Any break in the connectivity would delay the alerts been shown on the app. |
| **Frequency of Use:** | * Whenever boat is in moving state |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Systems Impacted** | * Fleet Portal * HLM Backend database * HIDAS * TCU * Platform Services * HLM backend service |
| **Threshold** | * NA |
| **Security Considerations** |  |
| **Definition of Done:** | **App user to be able to**   * Login successfully * Receive notification |

* + - 1. Create & Monitor Speed Alerts

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| **Release** | **Release 3.0** |
| [**Use case**](#M40) **ID** | **F.7.2** |
| **Actors:** | Boat club owner / Fleet owner, HLM Backend services, TCU Services, Cloud Platform Services, HIDAS |
| **Preconditions:** | * Fleet owner should be a registered user * Fleet owner should be able to login successfully to Fleet portal * Fleet owner has enrolled the boats to his fleet |
| **Post conditions:** | * Fleet owner should be able to set the speed limit on his boat(s) * Fleet owner should be able to get the notifications whenever the selected boats cross the defined speed limit * Fleet owner should be able to view the speed alert list |
| **Normal Flow:** | 1. User should be able to create speed alert  * User selects a boat from his fleet of boats. * App user taps on the Add speed alert feature of a boat. * App user can set over speed threshold value * App user can save the created speed alert |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * Speed alert responsiveness – As the speed data needs to be fetched from the HLM backend services, the responsiveness of the alerts highly depends on connectivity. Any break in the connectivity would delay the alerts been shown on the app. |
| **Frequency of Use:** | * Need based (when speed alerts need to be created) |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Systems Impacted** | * Fleet Portal * HLM Backend database * HIDAS * HLM backend service |
| **Threshold** | NA |
| **Security concerns** | NA |
| **Definition of Done:** | **App user to be able to**   * Login successfully * Create speed alerts * Apply, monitor & receive speed alerts |

* + - 1. Update Speed Alert & Monitor

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| **Release** | **Release 3.0** |
| [**Use case**](#M40) **ID** | **F.7.3** |
| **Actors:** | Boat club owner / Fleet owner, HLM Backend services, TCU Services, Cloud Platform Services, HIDAS |
| **Preconditions:** | * Fleet owner should be a registered user * Fleet owner should be able to login successfully to Fleet portal   Fleet owner has enrolled the boats to his fleet   * For Edit/Update speed alert functionality, there should be speed alerts already created. |
| **Post conditions:** | * App user should be able to apply the updated speed alerts * App user should be able to receive speed alerts if the boat speed crosses the configured threshold speed * App user should be able to view the speed alert * App user should be able to edit the speed alerts and apply the new configuration |
| **Normal Flow:** | 1. User should be able to Update speed alert  * App user taps on the existing speed alert to edit the entry * App user can change over speed threshold value * App user can save the updated speed alert |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * Speed alert responsiveness – As the speed data needs to be fetched from the HLM backend services, the responsiveness of the alerts highly depends connectivity. Any break in the connectivity would delay the alerts been shown on the app. |
| **Frequency of Use:** | * Need based (when speed alerts need to be updated) |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Systems Impacted** | * Fleet Portal * HLM Backend database * HIDAS * HLM backend service |
| **Threshold** | NA |
| **Security consideration** | NA |
| **Definition of Done:** | **App user to be able to**   * Login successfully * Ability to update speed alerts * Apply, monitor & receive speed alerts |

* + - 1. Disable/Delete Speed Alerts

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| **Release** | **Release 3.0** |
| [**Use case**](#M40) **ID** | **F.7.4** |
| **Actors:** | Boat club owner / Fleet owner, HLM Backend services, TCU Services, Cloud Platform Services, HIDAS |
| **Preconditions:** | * Fleet owner should be a registered user * Fleet owner should be able to login successfully to Fleet portal   Fleet owner has enrolled the boats to his fleet   * For Delete/Disable speed alert functionality, there should be speed alerts already created. |
| **Post conditions:** | * App user should be able to view the speed alert list * App user should be able to delete the speed alert(s) |
| **Normal Flow:** | 1. User should be able to disable/delete speed alert  * App user selects the existing speed alert entry to delete. * App user taps on disable/delete option. |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * Lost connectivity during deletion – The old state shall be retained |
| **Frequency of Use:** | * Need based (when speed alerts need to be deleted) |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Systems Impacted** | * Fleet Portal * HLM Backend database * HIDAS * HLM backend service |
| **Definition of Done:** | **App user to be able to**   * Login successfully * Delete speed alerts * Apply, monitor & receive speed alerts |

* + 1. User & Role management (F.8.0)

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| **ID** | **Use Case** | **Feature** | **Use case description** |
| **F.8.0** | User & Role Management | [Add a fleet user](#F71) | As a Fleet portal user, I would like to add my boat club staff as users of Fleet Portal, so that they can monitor fleet performance and get reports |
| [Delete User](#F72) | As a Fleet portal user, I would like to have an option to mark users deleted, so that they are not allowed to access the portal anymore. |
| Manage Roles | As a Fleet club owner, I would like to create user roles and assign access privileges to them, so that I can set roles to my user or staff while accessing the portal |

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* + - 1. Add a fleet user

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| **Release** | **Release 3.0** |
| [**Use case**](#F70) **ID** | F.8.1 |
| **Actors:** | Boat Club Owner / Fleet portal admin user, HLM backend system, Honda backend system |
| **Preconditions:** | * Boat club owner has registered for PE Marine Connectivity. * User has logged-in with admin credentials. |
| **Post conditions:** | * A new staff member has been created. * Role permissions has been updated. * User gets an acknowledgement on successfully adding the user |
| **Normal Flow:** | 1. Fleet portal admin user launches the application. 2. User Logs in with admin credentials. 3. User credentials are verified with backend customer database 4. On home page, user clicks on ‘User Management’ feature 5. Admin user adds new user, enters email id and selects a role from the list 6. Clicks submit to trigger an email to user to help him change password and get access to portal 7. Admin user gets a confirmation message after successful addition of new user |
| **Data Metrics:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Exceptions:** | * Network not available: During any workflow, if the internet connectivity is lost on the machine, browser specific message on connectivity lost appears. User session ends. |
| **Frequency of Use:** | * When the boat owner wants to add new staff member to the fleet portal. |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Systems Impacted** | * Fleet Portal * HLM backend system * Honda backend system |
| **Definition of Done:** | * The user can successfully create staff member * New user logs into portal and changes password |

* + - 1. Delete user

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| **Release** | **Release 3.0** |
| [**Use case**](#F70) **ID** | F.8.2 |
| **Actors:** | Fleet Owner/Admin user, HLM backend system, Honda backend system |
| **Preconditions:** | * User has admin privileges to Fleet portal * User is validated in backend system |
| **Post conditions:** | * The staff member is disabled access to Fleet portal |
| **Normal Flow:** | 1. Fleet portal admin user launches the application. 2. User Logs in with admin credentials. 3. User credentials are verified with backend customer database 4. On home page, user clicks on ‘User Management’ feature 5. From list of existing portal users, admin can select user/s and disable access to portal 6. Admin confirms deletion of staff member 7. The backend system disables the selected user from accessing the portal |
| **Data Metrics:** | NA |
| **Exceptions:** | **Problem in internet connection**: If user does not have the internet connectivity then no connectivity message by the browser comes up on the screen |
| **Frequency of Use:** | * When the boat owner wants to disable staff member from portal access. |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Systems Impacted** | * Fleet Portal * HLM backend system * Honda backend system |
| **Definition of Done:** | * The user can successfully disable portal access staff member |

* + - 1. Manage Roles

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| **Release** | **Release 3.0** |
| [**Use case**](#F70) **ID** | F.8.3 |
| **Actors:** | Fleet Owner/Admin user, HLM backend system, Honda backend system |
| **Preconditions:** | * User has admin privileges to Fleet portal * User is validated in backend system |
| **Post conditions:** | * The staff member is disabled access to Fleet portal |
| **Normal Flow:** | 1. Fleet portal admin user launches the application 2. User Logs in with admin credentials. 3. User credentials are verified with backend customer database 4. On home page, user clicks on ‘User Management’ Menu 5. Selects ‘Role management’ 6. Defines a new role, provide a new role name 7. User admin gets a check list of role privileges on the screen 8. User admin selects roles that he wants to map to the defined role 9. User admin clicks to save the role 10. User admin gets a confirmation message on the screen |
| **Data Metrics:** | NA |
| **Exceptions:** | **Problem in internet connection**: If user does not have the internet connectivity then no connectivity message by the browser comes up on the screen |
| **Frequency of Use:** | * Generally, this is a onetime activity when the application is subscribed |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Systems Impacted** | * Fleet Portal * HLM backend system   Honda backend system |
| **Definition of Done:** | * The user can successfully disable portal access staff member |

* + 1. Settings (F.9.0)

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| **ID** | **Use Case** | **Feature** | **Use case description** |
| F.9.0 | Portal settings | [Settings](#F81) | As a Fleet portal user, I would like to have a settings page to configure application settings, so that I can set my color theme, notifications, and alerts |

* + - 1. Settings

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| **Release** | **Release 2.0** |
| [**Use case**](#F70) **ID** | F.9.1 |
| **Actors:** | Fleet Owner/Admin user, HLM backend system, Honda backend system |
| **Preconditions:** | * User has admin privileges to Fleet portal * User is validated in backend system |
| **Post conditions:** | * Portal will have the new theme set by user * User will get alerts and notifications based on the settings |
| **Normal Flow:** | 1. Fleet portal admin user launches the application 2. User Logs in with admin credentials. 3. User credentials are verified with backend customer database 4. On home page, user clicks on 5. Notification 6. The user selects a feature ‘Notification’ under settings. 7. The user review/edit its current notification settings 8. The user can add/enable/disable notifications like speed, service, theft, geofence etc. for boats. 9. The user can select notification type like SMS, Mail or push notification based on criticality. 10. Theme 11. The user selects a feature ‘Theme’ under settings. 12. User uploads logo 13. User uses the cursor keys to preview the colors of the theme. 14. User selects the theme and apply. 15. The active color theme gets stored and applied. |
| **Data Metrics:** | None |
| **Exceptions:** | **Problem in internet connection**: If user does not have the internet connectivity then no connectivity message by the browser comes up on the screen |
| **Frequency of Use:** | * When the user needs to change notification and theme settings. |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Systems Impacted** | * HLM Backend System |
| **Definition of Done:** | * The user can successfully change notification and theme settings. |

* + 1. Firmware Update (F.10.0)

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| **ID** | **Use Case** | **Feature** | **Use case description** |
| F.10.0 | Firmware Update | Pull Firmware to TCU | As a Fleet portal user, I should be able to update Firmware on my TCU. |

* + - 1. Update Firmware

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| **Release** | **Release 2.0** |
| **Use Case ID** | **F.10.1** |
| **Actors:** | Fleet Owner/Admin user, HLM backend system, Honda backend system, TCU Services, Cloud Platform Services, HIDAS, Telit |
| **Preconditions:** | * Fleet owner should be a registered user * Fleet owner should be able to login successfully to Fleet portal * Fleet owner has enrolled the boats to his fleet |
| **Post conditions:** | * Fleet owner should be able to get the Firmware update Notification on the app. * Fleet owner can update Firmware immediately when notified or schedule the Date and Time for update to take effect later. |
| **Normal Flow:** | * Fleet owner/user gets the Firmware update Notification in the Fleet portal. * User selects Update button to start Firmware update immediately. * User can also schedule Firmware update to a later Date and Time by selecting Schedule Update option. * A Notification is shown on the Fleet portal when scheduled Date and Time is reached for update to take effect. * User selects Update button. * Once the update request is received from Fleet owner, TCU shall pull the latest Firmware from Telit. |
| **Data Metrics:** | * Number of times HLM App user updates Firmware. |
| **Exceptions:** | * **Connectivity to Telit**: If connectivity to Telit is lost; the Firmware update execution will fail and will resume once the connection is re-established. * **Problem in internet connection:** If user does not have the internet connectivity in the mobile application throw the error message to enable the internet connection. * **Error retrieving the data:** Problem occurred retrieving the data from Honda backend system regarding TCU and ownership details will cause use case to end and appropriate error message shown to retry or try after some time. |
| **Frequency of Use:** | * Based on the Firmware Update frequency. |
| **Business Rules:** | Refer [HLM\_BusinessRule\_Matrix\_v1.5 document](#F80) |
| **Systems Impacted** | * Telit * TCU * HLM fleet portal app * HLM Database * Honda backend system |
| **Definition of Done:** | Fleet owner to be able to:   * Login successfully * Firmware Update Notification is received on portal. * User should be able to Update Firmware immediately. * User should be able to Schedule Firmware Update to a specific Date and Time. |

1. Abbreviations

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| **Abbreviation** | **Meaning** |
| L&T TS | L&T Technology services |
| LTTS | L&T Technology services |
| BRD | Business Requirement Document |
| HLM | HondaLink Marine |
| TCU | Telematics control Unit |
| UIUX | User Interface and User Experience |
| iN portal | Interactive Network portal |
| HIdAS | Honda Id and Authentication System |
| IOT | Internet of Things |
| AWS | Amazon Web Services |
| OEM | Original equipment manufacturer |
| MQTT | Message Queue Telemetry Transport |
| NMEA | National Marine Electronics Association |
| MFD | Multifunction Display |
| OS | Operating System |
| B2B | Business to Business |
| B2C | Business to Customer |
| T&C | Terms and Conditions |
| API | Application Programming Interface |
| HNA | Honda North America |
| PGN | Parameter Group Number |
| OSS | Online Service Scheduling |
| CCPA | California Consumer Privacy Act |
| GDPR | General Data Protection Regulation |
| iOS | iPhone Operating System |
| PDF | Portable Document Format |
| GPS | Global Positioning System |
| CPSD | Connected Platform Service Department |
| CI/ CD | Continuous integration / Continuous Development |
| CMS | Content Management System |
| KPI | Key Performance Index |
| HTTP & HTTPS | Hypertext Transfer Protocol |
| REST | Representational State Transfer |
| LDAP | Lightweight Directory Access Protocol |
| XXHDPI & XXXHDPI | eXtra eXtra High density |
| PIN | Personal identification number |
| SMS | Short Message Service |
| SNS | Simple Notification Service |
| EMAIL | Electronic mail |
| HMI | Human Machine Interface |
| BLE | Bluetooth Low Energy |