User Acceptance Test Specification

Project Astra Otopower Mobile Apps FOR PT Ardendi Jaya Sentosa

**REVISION STATUS SHEET**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Revision Number | Effective Date | Description / Summary of Revision | Copy updated by  Initials Date | |
| 00 | 01-Jun-2023 | Initial version | Gabriel Chen | 01-Jun-2023 |
| 01 | 05-Jun-2023 | Remove duplicated test case number | Gabriel Chen | 05-Jun-2023 |
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|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

CONTENTS

[1. Login & Register 11](#_Toc136447378)

[1.1. Test case FR-01 : Customer capable register via phone number, email, password, Google/FB & validated by OTP (sms/WA) 11](#_Toc136447379)

[1.2. Test case FR-02 : Stay Login in mobile apps 12](#_Toc136447380)

[1.3. Test case FR-03 : Retrieve password if customer forget password 13](#_Toc136447381)

[2. Home Charging 14](#_Toc136447382)

[2.1. Test case FR-04 : Home Charging Schedule 14](#_Toc136447383)

[2.2. Test case FR-05 : Trigger Start & Stop Charging via mobile Apps 15](#_Toc136447384)

[2.3. Test case FR-06 : Customer monitor charging progress real time in mobile apps (Provided data from machine) 16](#_Toc136447385)

[2.4. Test case FR-6a : Customer can adjust current output of the EV charger 17](#_Toc136447386)

[2.5. Test case FR-07 : Charging Summary Report for each customer not each vehicle 18](#_Toc136447387)

[2.6. Test case FR-08 : Pairing & unpair machine via QR Code (as customer) 19](#_Toc136447388)

[2.7. Test case FR-09 : Mobile apps able to connect and manage EV charger via bluetooh, via WIFI and via Internet connection 20](#_Toc136447389)

[2.8. Test case FR-10 : Register and lock RFID card to EV charger so RFID can be used on the EV charger 21](#_Toc136447390)

[3. Discover & Direction 22](#_Toc136447391)

[3.1. Test case FR-11 : Discover EVCSN (Electric Vehicle Charging Station Network) (AOPo Network) 22](#_Toc136447392)

[3.2. Test case FR-12 : Filter by Facilities (ex: café, mall, etc), Garasiku (Vehicle Types), Availability 23](#_Toc136447393)

[3.3. Test case FR-13 : Show direction to chosen EVCSN (Electric Vehicle Charging Station Network) via map (Give third party suggestion) 24](#_Toc136447394)

[3.4. Test case FR-14 : EVCSN (Electric Vehicle Charging Station Network) Reservation 25](#_Toc136447395)

[3.5. Test case FR-15 : Show info of each EVCSN (Electric Vehicle Charging Station Network) ex: connectors, facilities, charging cost, Machine type (medium 50 kw), status (in use, available, not available) 26](#_Toc136447396)

[3.6. Test case FR-16 : Able to cancel booking if the connector is not plugged to the vehicle within several minutes after the booking schedule start 27](#_Toc136447397)

[4. Public Charging 28](#_Toc136447398)

[4.1. Test case FR-17 : Start Charging process by scan QR Code 28](#_Toc136447399)

[4.2. Test case FR-18 : Trigger Start & Stop Charging via mobile Apps 29](#_Toc136447400)

[4.3. Test case FR-19 : Notification by mobile apps 30](#_Toc136447401)

[4.4. Test case FR-20 : Estimated cost before start charging process 31](#_Toc136447402)

[4.5. Test case FR-21 : Balance top up via Payment gateway 32](#_Toc136447403)

[4.6. Test case FR-22 : Balance deduction after charging process is finished 33](#_Toc136447404)

[4.7. Test case FR-23 : Use voucher to reduce charging cost 34](#_Toc136447405)

[4.8. Test case FR-24 : Charging method charge vehicle by time 35](#_Toc136447406)

[4.9. Test case FR-25a : Charging method charge vehicle by amount 36](#_Toc136447407)

[4.10. Test case FR-25b : Charging method charge vehicle by kWh dispensed 37](#_Toc136447408)

[4.11. Test case FR-25c : Penalty will be imposed to user if the connector is not disconnected from the vehicle within seconds after charging process is finished 38](#_Toc136447409)

[4.12. Test case FR-26 : Charging Summary Report 39](#_Toc136447410)

[4.13. Test case FR-27 : Customer monitor charging progress real time 40](#_Toc136447411)

[5. Trip Planner Menu 41](#_Toc136447412)

[5.1. Test case FR-28 : Customer shall be able to receive trip planning recommendations with considerations of battery usage, charging stations (follows customer vehicle type), distance, time & traffics condition. 41](#_Toc136447413)

[6. Manage Account 42](#_Toc136447414)

[6.1. Test case FR-29 : Customer can save their vehicles (Brand, model & year) 42](#_Toc136447415)

[6.2. Test case FR-30 : Customer can save & edit customer profile (name, hp, address, DOB) 43](#_Toc136447416)

[6.3. Test case FR-31 : Customer can save & edit customer profile (dll) 44](#_Toc136447417)

[6.4. Test case FR-31a : Home charging report 45](#_Toc136447418)

[6.5. Test case FR-32 : Public charging report 46](#_Toc136447419)

[6.6. Test case FR-33 : Customer can apply discount voucher (if any) 47](#_Toc136447420)

[7. Integration with another Astra Otoparts Owned Application 48](#_Toc136447421)

[7.1. Test case FR-34 : App shall be able to seamlessly integrate into another Astra Otoparts owned application 48](#_Toc136447422)

[7.2. Test case FR-35 : User shall be able to give review and ratings on the charging location 49](#_Toc136447423)

[7.3. Test case FR-36 : User shall be able to participate in Astra Otopoarts owned application loyalty program once it is integrated 50](#_Toc136447424)

[8. Admin Panel 51](#_Toc136447425)

[8.1. Test case FR-37 : Public charging report 51](#_Toc136447426)

[8.2. Test case FR-38 : Create Discount Voucher 52](#_Toc136447427)

[8.3. Test case FR-39 : Network manager could manage a group of charging stations 53](#_Toc136447428)

[8.4. Test case FR-40 : Add home charging & generate QR & print 54](#_Toc136447429)

[8.5. Test case FR-41 : Add Public charging & generate QR & print 55](#_Toc136447430)

[8.6. Test case FR-42 : Public charging dashboard 56](#_Toc136447431)

[8.7. Test case FR-43 : Home charging dashboard 57](#_Toc136447432)

[8.8. Test case FR-44 : Notification via WA/Email if error persist in public charging 58](#_Toc136447433)

[8.9. Test case FR-45 : May establish & operate charging 59](#_Toc136447434)

[8.10. Test case FR-46 : May allow charging stations to enlist 60](#_Toc136447435)

[8.11. Test case FR-47 : CRUD: Create Read Update Delete for above activities 61](#_Toc136447436)

[8.12. Test case FR-48 : Create customer group level (administrator & whitelist user) 62](#_Toc136447437)

[8.13. Test case FR-49 : OCPP 1.6 & above platform compliance 63](#_Toc136447438)

[9. Manage life cycle 64](#_Toc136447439)

[9.1. Test case TR-01 : Application should provide modularized upgrade capability. Upgrading a unit of the application should not require a reinstall of the entire application 64](#_Toc136447440)

[9.2. Test case TR-02 : Application should have product life cycle management (have regular release) to improve and add new functionality 65](#_Toc136447441)

[10. Manage system architecture 66](#_Toc136447442)

[10.1. Test case TR-03 : The system must have 3 tier architecture capabilities. Physical tiering capability is required 66](#_Toc136447443)

[10.2. Test case TR-04 : The system should support microservices architecture in order to support faster deliverability of new application feature 67](#_Toc136447444)

[10.3. Test case TR-05 : The system architecture support RAID (redundant disks) and storage/external disks 68](#_Toc136447445)

[10.4. Test case TR-06 : The system has its owned customization toolset 69](#_Toc136447446)

[10.5. Test case TR-07 : The system has integrated capability to manage batch transaction processing (job scheduling) 70](#_Toc136447447)

[10.6. Test case TR-08 : The system should have automated data archiving capabilities 71](#_Toc136447448)

[11. Manage Integration 72](#_Toc136447449)

[11.1. Test case TR-09 : The system has the ability to work together with 3rd party applications (multi- vendor platforms, multi-vendor components, custom built components, etc.) 72](#_Toc136447450)

[11.2. Test case TR-10 : The system has the ability to support industry standard integration technology e.g. COM/DCOM, CORBA, RMI, XML, Web Service, batch files, OCPP, etc. 73](#_Toc136447451)

[11.3. Test case TR-11 : The system has ability to support communication external tools such RFID and NFC 74](#_Toc136447452)

[11.4. Test case TR-12 : The system has the ability to support industry standard integration protocol (e.g. EDI, flatfiles) 75](#_Toc136447453)

[11.5. Test case TR-13 : Integration capabilities should support multiple file output formats to 3rd parties(XML, EDI, CSV, XLS) 76](#_Toc136447454)

[11.6. Test case TR-14 : The system has integration capabilities for mainstream vendors, e.g.: Tibco, SeeBeyond, WebMethods etc 77](#_Toc136447455)

[11.7. Test case TR-15 : The system has standardized adapter for integration to other systems and able to provide example of currently supported vendors 78](#_Toc136447456)

[11.8. Test case TR-16 : The system has the ability to support time/event-based execution of APIs 79](#_Toc136447457)

[12. Manage Performance 80](#_Toc136447458)

[12.1. Test case TR-17 : The system has the ability to handle large data transfer volumes (e.g. queries, bulk data transfers, extractions) 80](#_Toc136447459)

[12.2. Test case TR-18 : The system has the ability to support acceptable response time for getting a response from the system (e.g. moving between fields or initiating a function, display order,etc. ) should be less than: 2 seconds 81](#_Toc136447460)

[12.3. Test case TR-19 : The system has the ability to run on the following network bandwidth : 1-2 Mbps 82](#_Toc136447461)

[12.4. Test case TR-20 : The system has the ability to create indexes on the fly (in case of performance problems), and the system should be available without having to install additional patches and/or upgrades from the vendor 83](#_Toc136447462)

[12.5. Test case TR-21 : The system is capable to provide system performance report (i.e.: system response time, transation time, etc.) 84](#_Toc136447463)

[12.6. Test case TR-22 : The system has the ability to support any changes required in order to meet an increase or decrease in business volume or number of users. This can be either vertical or horizontal: The software and the administration changes to be mentioned 85](#_Toc136447464)

[13. Manage Scalability 86](#_Toc136447465)

[13.1. Test case TR-24 : The system has the ability to anticipate and handle sudden spike in transaction volumes 86](#_Toc136447466)

[14. Manage Portability 87](#_Toc136447467)

[14.1. Test case TR-25 : The system has the ability to run on the leading O/S such as UNIX family (Oracle, HP-UX, or IBM-AIX) and/or Microsoft Windows family 87](#_Toc136447468)

[14.2. Test case TR-26 : The system is compatible to leading DB product (i.e. Oracle and MS SQL) 88](#_Toc136447469)

[14.3. Test case TR-27 : The system should able to support standard query tools such as SQL 89](#_Toc136447470)

[15. Manage Application Security 90](#_Toc136447471)

[15.1. Test case TR-28 : The system has the ability to manage access based on user, function (role / responsibility assignment) in application level 90](#_Toc136447472)

[15.2. Test case TR-29 : The system has ability to manage and provide access / security into data level in application level. 91](#_Toc136447473)

[15.3. Test case TR-30 : The governance of user management must be able to be maintained at application level (not at O/S or database level), based on user role / responsibility assignment. 92](#_Toc136447474)

[15.4. Test case TR-31 : Supports security level driven by user configuration of operational tasks 93](#_Toc136447475)

[15.5. Test case TR-32 : The system should provide secure DBA access for database maintenance 94](#_Toc136447476)

[16. Manage Usability 95](#_Toc136447477)

[16.1. Test case TR-33 : The system has the ability to support Export/import of data in standardized format, e.g.: XML, comma separated, MS Excel) 95](#_Toc136447478)

[16.2. Test case TR-34 : The system has the ability to support upload of Data in MS Excel format into the database 96](#_Toc136447479)

[16.3. Test case TR-35 : The system has ability to provide tools for Report / Form creation (eg. Delivery Note Form, Invoice Order Form, etc) 97](#_Toc136447480)

[16.4. Test case TR-36 : The system has ability to develop user-configurable reports in addition to "out of the box" provided reports. 98](#_Toc136447481)

[16.5. Test case TR-37 : The system has the ability to support flexible reporting (e.g. drill down), ad hoc reporting online, defined reports/variants on the fly, and/or interactive business reporting (selection criteria, sorting, column/row) 99](#_Toc136447482)

[16.6. Test case TR-38 : The system has the ability to support a flexible tool for setting up forms should be provided - to include logos, special names, layout etc. for a specific layout. Mainly for external documents 100](#_Toc136447483)

[16.7. Test case TR-39 : The system has the ability to support English and Bahasa language in printed forms 101](#_Toc136447484)

[16.8. Test case TR-40 : The system has ability to provide report and dashboard for analytic 102](#_Toc136447485)

[16.9. Test case TR-41 : The system has the ability to support barcode scan & printing 103](#_Toc136447486)

[16.10. Test case TR-42 : The system has the ability to trigger business transactions /Messages / events from barcode reading 104](#_Toc136447487)

[16.11. Test case TR-43 : The system has the ability to routing of printouts to specific printers, including network printer. 105](#_Toc136447488)

[16.12. Test case TR-44 : The system is compatible to leading printer provider, e.g.: HP, Epson, and Xerox 106](#_Toc136447489)

[16.13. Test case TR-45 : The system has the ability to support for different media (paper, fax, e-mail) 107](#_Toc136447490)

[16.14. Test case TR-46 : The system should support alert notification via general channel, e.g.: email, SMS 108](#_Toc136447491)

[16.15. Test case TR-47 : The system should provide data locking mechanism. Data will be released when user quit from system because of out of idle time. 109](#_Toc136447492)

[16.16. Test case TR-48 : The product should have Entity Relationship Diagrams depicting the Data Model for the MDS and SFA system. This is to be provided as part of deliverables 110](#_Toc136447493)

[16.17. Test case TR-49 : The application must support TCP/IP network protocol 111](#_Toc136447494)

[17. Manage User Interface 112](#_Toc136447495)

[17.1. Test case TR-50 : The system should support user interface with Desktop Application and Web Based 112](#_Toc136447496)

[17.2. Test case TR-51 : The client GUI interface is compatible with Windows XP, Windows 7 or previous version. 113](#_Toc136447497)

[17.3. Test case TR-52 : The system is accessible in mobile application of handheld device such as Android & iPhone 114](#_Toc136447498)

[17.4. Test case TR-53 : The system has the ability to support UI in English and Bahasa 115](#_Toc136447499)

[18. Manage Toolsets 116](#_Toc136447500)

[18.1. Test case TR-54 : The system has the ability to provide version control mechanism 116](#_Toc136447501)

[18.2. Test case TR-55 : The system has the ability to provide a debugger in the development environment 117](#_Toc136447502)

[18.3. Test case TR-56 : The system has the ability to provide access to source code and access to do custom API development 118](#_Toc136447503)

[19. Configuration and Problem Management 119](#_Toc136447504)

[19.1. Test case TR-57 : The system has the ability to support / handle configuration management 119](#_Toc136447505)

[19.2. Test case TR-58 : The system has the ability to provide traceability for all changes incorporated into the production, development, and testing environments. 120](#_Toc136447506)

[19.3. Test case TR-59 : The system has the ability to capture issues during the development and testing stage 121](#_Toc136447507)

[20. Manage Data Migration 122](#_Toc136447508)

[20.1. Test case TR-60 : The system has the ability to support Upward migration (from development to test and to production environments) 122](#_Toc136447509)

[20.2. Test case TR-61 : The system has the ability to support Downward migration of data 123](#_Toc136447510)

[20.3. Test case TR-62 : Data migration from existing systems to MDS is supported. 124](#_Toc136447511)

[20.4. Test case TR-63 : Application should provide upload capability for master/configuration data. No manual conversion of such data should be required 125](#_Toc136447512)

[21. Manage Backups / Restores 126](#_Toc136447513)

[21.1. Test case TR-64 : The system has the ability to perform backup process that include all critical components and master data, including the production database, the operating system, and application software. 126](#_Toc136447514)

[21.2. Test case TR-65 : The system should have facility for database backup 127](#_Toc136447515)

[21.3. Test case TR-66 : The system should support online database backup 128](#_Toc136447516)

[21.4. Test case TR-67 : The system should be capable for recovery to the point of failure 129](#_Toc136447517)

[22. Manage Availability 130](#_Toc136447518)

[22.1. Test case TR-68 : The system has the ability to manage fail-overs (support high availability / clustering) and/or online replication for remote DR sites 130](#_Toc136447519)

[23. Manage Audit Trails 131](#_Toc136447520)

[23.1. Test case TR-69 : The system has the ability to provide audit trails on transactions of specific user (super user / defined business users when needed). 131](#_Toc136447521)

[23.2. Test case TR-70 : The system has the ability to track changes done via business transactions (e.g. by the user) on master data 132](#_Toc136447522)

[23.3. Test case TR-71 : Changes log to user ID management is available (e.g. user ID creation/deletion, changes in role assignment, last logon date, last password change) 133](#_Toc136447523)

[24. Manage Monitoring 134](#_Toc136447524)

[24.1. Test case TR-72 : The system has the ability to provide a view of the application landscape consisting of the MDS and the connected external applications, including the integration details (e.g. infrastructures, connection configuration, connection mode, etc.), and contact details (e.g. PIC, escalation path, etc.) 134](#_Toc136447525)

[24.2. Test case TR-73 : The system has the ability to provide visibility to system level performance 135](#_Toc136447526)

[24.3. Test case TR-74 : The system has the ability to provide visibility to system level events 136](#_Toc136447527)

[24.4. Test case TR-75 : The system support alert notification via sms, email, Whatsapp, apps notification 137](#_Toc136447528)

[24.5. Test case TR-76 : Ability to audit logs and report on user account activity, rights and privileges. 138](#_Toc136447529)

[25. Manage Authentication 139](#_Toc136447530)

[25.1. Test case TR-77 : The system has the ability to ensure good password quality eg. minimum character, complexity structure, historical password 139](#_Toc136447531)

[25.2. Test case TR-78 : The system has the ability to provide protection on the database from being accessed by unauthorized users via applications 140](#_Toc136447532)

[25.3. Test case TR-79 : The system has the ability to log activity and detect security violations 141](#_Toc136447533)

[25.4. Test case TR-80 : The system has the ability to utilize network components (firewall, routers, etc.) to avoid unauthorized network access 142](#_Toc136447534)

[25.5. Test case TR-81 : The system has the ability to support Role-based authorizations for both standard transactions and APIs 143](#_Toc136447535)

[25.6. Test case TR-82 : The system has the ability to support access control per business function 144](#_Toc136447536)

[25.7. Test case TR-83 : The system has the ability to apply industry standard encryption algorithm where necessary (e.g. data transmission during logons, sensitive data storage, e.g. password) 145](#_Toc136447537)

[25.8. Test case TR-84 : The system has the ability to provide logging mechanism to trace system problems 146](#_Toc136447538)

[25.9. Test case TR-85 : The system has the ability to be accessed through safe protocol e.g. HTTPS, SSL for web communication 147](#_Toc136447539)

[25.10. Test case TR-86 : Ability to configure account expiration information and session timeouts after a predetermined amount of inactivity. 148](#_Toc136447540)

[25.11. Test case TR-87 : The system has ability / support 2 two factor authentication (ex : OTP via SMS / WA / Email) 149](#_Toc136447541)

[25.12. Test case TR-88 : Ability to support single sign-on / Oauth using facebook / Google 150](#_Toc136447542)

[26. Manage License Compliance 151](#_Toc136447543)

[26.1. Test case TR-89 : The system has clear mechanism for license compliance, e.g.: calculation based on # users and/or concurrent user 151](#_Toc136447544)

[27. Manage system support 152](#_Toc136447545)

[27.1. Test case TR-90 : There is 24/7 help desk support coverage 152](#_Toc136447546)

[27.2. Test case TR-91 : There is capability to provide on-site support if required, based on SLA 153](#_Toc136447547)

[27.3. Test case TR-92 : System documentation is available and accessible (i.e. online, CD, etc.), to be provided as part of deliverables 154](#_Toc136447548)

# Login & Register

## Test case FR-01 : Customer capable register via phone number, email, password, Google/FB & validated by OTP (sms/WA)

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| --- | --- | --- | --- | --- | --- | --- |
| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Mobile App user | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case FR-02 : Stay Login in mobile apps

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Mobile App user | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case FR-03 : Retrieve password if customer forget password

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Mobile App user | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

# Home Charging

## Test case FR-04 : Home Charging Schedule

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case FR-05 : Trigger Start & Stop Charging via mobile Apps

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case FR-06 : Customer monitor charging progress real time in mobile apps (Provided data from machine)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case FR-6a : Customer can adjust current output of the EV charger

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case FR-07 : Charging Summary Report for each customer not each vehicle

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case FR-08 : Pairing & unpair machine via QR Code (as customer)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case FR-09 : Mobile apps able to connect and manage EV charger via bluetooh, via WIFI and via Internet connection

Condition : Client to provide GATT and internal API list of each EVC model. At the moment, 2 models of EVC is included (AC Charger & DC Charger)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case FR-10 : Register and lock RFID card to EV charger so RFID can be used on the EV charger

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

# Discover & Direction

## Test case FR-11 : Discover EVCSN (Electric Vehicle Charging Station Network) (AOPo Network)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case FR-12 : Filter by Facilities (ex: café, mall, etc), Garasiku (Vehicle Types), Availability

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case FR-13 : Show direction to chosen EVCSN (Electric Vehicle Charging Station Network) via map (Give third party suggestion)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case FR-14 : EVCSN (Electric Vehicle Charging Station Network) Reservation

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case FR-15 : Show info of each EVCSN (Electric Vehicle Charging Station Network) ex: connectors, facilities, charging cost, Machine type (medium 50 kw), status (in use, available, not available)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case FR-16 : Able to cancel booking if the connector is not plugged to the vehicle within several minutes after the booking schedule start

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

# Public Charging

## Test case FR-17 : Start Charging process by scan QR Code

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case FR-18 : Trigger Start & Stop Charging via mobile Apps

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case FR-19 : Notification by mobile apps

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case FR-20 : Estimated cost before start charging process

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case FR-21 : Balance top up via Payment gateway

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case FR-22 : Balance deduction after charging process is finished

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case FR-23 : Use voucher to reduce charging cost

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case FR-24 : Charging method charge vehicle by time

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case FR-25a : Charging method charge vehicle by amount

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case FR-25b : Charging method charge vehicle by kWh dispensed

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case FR-25c : Penalty will be imposed to user if the connector is not disconnected from the vehicle within seconds after charging process is finished

Condition : If the EVC is able to return SOC to the Backend System

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case FR-26 : Charging Summary Report

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case FR-27 : Customer monitor charging progress real time

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

# Trip Planner Menu

## Test case FR-28 : Customer shall be able to receive trip planning recommendations with considerations of battery usage, charging stations (follows customer vehicle type), distance, time & traffics condition.

Compliance table indicates NO.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

# Manage Account

## Test case FR-29 : Customer can save their vehicles (Brand, model & year)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case FR-30 : Customer can save & edit customer profile (name, hp, address, DOB)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case FR-31 : Customer can save & edit customer profile (dll)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case FR-31a : Home charging report

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case FR-32 : Public charging report

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case FR-33 : Customer can apply discount voucher (if any)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

# Integration with another Astra Otoparts Owned Application

## Test case FR-34 : App shall be able to seamlessly integrate into another Astra Otoparts owned application

Condition : Client has to provide complete API list for integration, additional development time might be required

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case FR-35 : User shall be able to give review and ratings on the charging location

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case FR-36 : User shall be able to participate in Astra Otopoarts owned application loyalty program once it is integrated

Condition : Client has to provide complete API list for integration, additional development time might be required

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

# Admin Panel

## Test case FR-37 : Public charging report

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case FR-38 : Create Discount Voucher

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case FR-39 : Network manager could manage a group of charging stations

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case FR-40 : Add home charging & generate QR & print

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case FR-41 : Add Public charging & generate QR & print

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case FR-42 : Public charging dashboard

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case FR-43 : Home charging dashboard

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case FR-44 : Notification via WA/Email if error persist in public charging

Condition : Third Party services is required, and this cost will be beared by client

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case FR-45 : May establish & operate charging

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case FR-46 : May allow charging stations to enlist

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case FR-47 : CRUD: Create Read Update Delete for above activities

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case FR-48 : Create customer group level (administrator & whitelist user)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case FR-49 : OCPP 1.6 & above platform compliance

Condition : Only OCPP 1.6 is available at the moment

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| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

# Manage life cycle

## Test case TR-01 : Application should provide modularized upgrade capability. Upgrading a unit of the application should not require a reinstall of the entire application

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| --- | --- | --- | --- | --- | --- | --- |
| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case TR-02 : Application should have product life cycle management (have regular release) to improve and add new functionality

Condition : The development from LITEON will be ended by end of this project. However, additional support to improve and add new functionality will be out of scope of this project.

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| --- | --- | --- | --- | --- | --- | --- |
| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

# Manage system architecture

## Test case TR-03 : The system must have 3 tier architecture capabilities. Physical tiering capability is required

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case TR-04 : The system should support microservices architecture in order to support faster deliverability of new application feature

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case TR-05 : The system architecture support RAID (redundant disks) and storage/external disks

Condition : Cloud version, it is NA

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| --- | --- | --- | --- | --- | --- | --- |
| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case TR-06 : The system has its owned customization toolset

Condition : The system has its owned customization toolset

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| --- | --- | --- | --- | --- | --- | --- |
| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case TR-07 : The system has integrated capability to manage batch transaction processing (job scheduling)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case TR-08 : The system should have automated data archiving capabilities

|  |  |  |  |  |  |  |
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| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

# Manage Integration

## Test case TR-09 : The system has the ability to work together with 3rd party applications (multi- vendor platforms, multi-vendor components, custom built components, etc.)

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| --- | --- | --- | --- | --- | --- | --- |
| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case TR-10 : The system has the ability to support industry standard integration technology e.g. COM/DCOM, CORBA, RMI, XML, Web Service, batch files, OCPP, etc.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case TR-11 : The system has ability to support communication external tools such RFID and NFC

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case TR-12 : The system has the ability to support industry standard integration protocol (e.g. EDI, flatfiles)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case TR-13 : Integration capabilities should support multiple file output formats to 3rd parties(XML, EDI, CSV, XLS)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case TR-14 : The system has integration capabilities for mainstream vendors, e.g.: Tibco, SeeBeyond, WebMethods etc

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case TR-15 : The system has standardized adapter for integration to other systems and able to provide example of currently supported vendors

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case TR-16 : The system has the ability to support time/event-based execution of APIs

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

# Manage Performance

## Test case TR-17 : The system has the ability to handle large data transfer volumes (e.g. queries, bulk data transfers, extractions)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case TR-18 : The system has the ability to support acceptable response time for getting a response from the system (e.g. moving between fields or initiating a function, display order,etc. ) should be less than: 2 seconds

Condition : If the API has to communicate with EVC, the response time depends on EVC. Other than it, the response time is able to stay within 2 seconds

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case TR-19 : The system has the ability to run on the following network bandwidth : 1-2 Mbps

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| --- | --- | --- | --- | --- | --- | --- |
| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case TR-20 : The system has the ability to create indexes on the fly (in case of performance problems), and the system should be available without having to install additional patches and/or upgrades from the vendor

Condition : Compliance table marked as NO. Requires further clarification.

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| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case TR-21 : The system is capable to provide system performance report (i.e.: system response time, transation time, etc.)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case TR-22 : The system has the ability to support any changes required in order to meet an increase or decrease in business volume or number of users. This can be either vertical or horizontal: The software and the administration changes to be mentioned

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

# Manage Scalability

## Test case TR-24 : The system has the ability to anticipate and handle sudden spike in transaction volumes

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

# Manage Portability

## Test case TR-25 : The system has the ability to run on the leading O/S such as UNIX family (Oracle, HP-UX, or IBM-AIX) and/or Microsoft Windows family

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case TR-26 : The system is compatible to leading DB product (i.e. Oracle and MS SQL)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case TR-27 : The system should able to support standard query tools such as SQL

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| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

# Manage Application Security

## Test case TR-28 : The system has the ability to manage access based on user, function (role / responsibility assignment) in application level

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case TR-29 : The system has ability to manage and provide access / security into data level in application level.

|  |  |  |  |  |  |  |
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| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case TR-30 : The governance of user management must be able to be maintained at application level (not at O/S or database level), based on user role / responsibility assignment.

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| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case TR-31 : Supports security level driven by user configuration of operational tasks

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| --- | --- | --- | --- | --- | --- | --- |
| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case TR-32 : The system should provide secure DBA access for database maintenance

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

# Manage Usability

## Test case TR-33 : The system has the ability to support Export/import of data in standardized format, e.g.: XML, comma separated, MS Excel)

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| --- | --- | --- | --- | --- | --- | --- |
| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case TR-34 : The system has the ability to support upload of Data in MS Excel format into the database

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| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case TR-35 : The system has ability to provide tools for Report / Form creation (eg. Delivery Note Form, Invoice Order Form, etc)

Condition : Compliance table marked as NO.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case TR-36 : The system has ability to develop user-configurable reports in addition to "out of the box" provided reports.

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| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case TR-37 : The system has the ability to support flexible reporting (e.g. drill down), ad hoc reporting online, defined reports/variants on the fly, and/or interactive business reporting (selection criteria, sorting, column/row)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case TR-38 : The system has the ability to support a flexible tool for setting up forms should be provided - to include logos, special names, layout etc. for a specific layout. Mainly for external documents

Condition : Compliance table marked as NO.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case TR-39 : The system has the ability to support English and Bahasa language in printed forms

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case TR-40 : The system has ability to provide report and dashboard for analytic

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case TR-41 : The system has the ability to support barcode scan & printing

Condition : The printing function will be achieved by the browser. The barcode scan feature is achieved by external device

|  |  |  |  |  |  |  |
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| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case TR-42 : The system has the ability to trigger business transactions /Messages / events from barcode reading

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| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case TR-43 : The system has the ability to routing of printouts to specific printers, including network printer.

Condition : The printing function will be achieved by the browser.

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| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case TR-44 : The system is compatible to leading printer provider, e.g.: HP, Epson, and Xerox

Condition : The printing function will be achieved by the browser.

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| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case TR-45 : The system has the ability to support for different media (paper, fax, e-mail)

Condition : The printing function will be achieved by the browser.

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| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case TR-46 : The system should support alert notification via general channel, e.g.: email, SMS

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| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case TR-47 : The system should provide data locking mechanism. Data will be released when user quit from system because of out of idle time.

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| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case TR-48 : The product should have Entity Relationship Diagrams depicting the Data Model for the MDS and SFA system. This is to be provided as part of deliverables

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| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case TR-49 : The application must support TCP/IP network protocol

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| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

# Manage User Interface

## Test case TR-50 : The system should support user interface with Desktop Application and Web Based

Condition : Only Web Based. Desktop application is achieved through browser as well

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| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case TR-51 : The client GUI interface is compatible with Windows XP, Windows 7 or previous version.

Condition : the interface is compatible to latest browsers only

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| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case TR-52 : The system is accessible in mobile application of handheld device such as Android & iPhone

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| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case TR-53 : The system has the ability to support UI in English and Bahasa

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| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

# Manage Toolsets

## Test case TR-54 : The system has the ability to provide version control mechanism

Condition : This is achieved through third party services - e.g Github

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| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case TR-55 : The system has the ability to provide a debugger in the development environment

Condition : This is achieved through third party services - e.g VS Code

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| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case TR-56 : The system has the ability to provide access to source code and access to do custom API development

Condition : Refer to Commercial Proposal

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| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

# Configuration and Problem Management

## Test case TR-57 : The system has the ability to support / handle configuration management

Condition : This is achieved through third party services - AWS

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| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case TR-58 : The system has the ability to provide traceability for all changes incorporated into the production, development, and testing environments.

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| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case TR-59 : The system has the ability to capture issues during the development and testing stage

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| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

# Manage Data Migration

## Test case TR-60 : The system has the ability to support Upward migration (from development to test and to production environments)

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| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case TR-61 : The system has the ability to support Downward migration of data

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| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case TR-62 : Data migration from existing systems to MDS is supported.

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| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case TR-63 : Application should provide upload capability for master/configuration data. No manual conversion of such data should be required

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| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

# Manage Backups / Restores

## Test case TR-64 : The system has the ability to perform backup process that include all critical components and master data, including the production database, the operating system, and application software.

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| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case TR-65 : The system should have facility for database backup

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| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case TR-66 : The system should support online database backup

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| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case TR-67 : The system should be capable for recovery to the point of failure

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| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

# Manage Availability

## Test case TR-68 : The system has the ability to manage fail-overs (support high availability / clustering) and/or online replication for remote DR sites

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| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

# Manage Audit Trails

## Test case TR-69 : The system has the ability to provide audit trails on transactions of specific user (super user / defined business users when needed).

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| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case TR-70 : The system has the ability to track changes done via business transactions (e.g. by the user) on master data

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| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case TR-71 : Changes log to user ID management is available (e.g. user ID creation/deletion, changes in role assignment, last logon date, last password change)

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| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

# Manage Monitoring

## Test case TR-72 : The system has the ability to provide a view of the application landscape consisting of the MDS and the connected external applications, including the integration details (e.g. infrastructures, connection configuration, connection mode, etc.), and contact details (e.g. PIC, escalation path, etc.)

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| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case TR-73 : The system has the ability to provide visibility to system level performance

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| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case TR-74 : The system has the ability to provide visibility to system level events

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| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case TR-75 : The system support alert notification via sms, email, Whatsapp, apps notification

Condition : This is achieved through third party services which the cost will be beared by client

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| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case TR-76 : Ability to audit logs and report on user account activity, rights and privileges.

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| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

# Manage Authentication

## Test case TR-77 : The system has the ability to ensure good password quality eg. minimum character, complexity structure, historical password

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| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case TR-78 : The system has the ability to provide protection on the database from being accessed by unauthorized users via applications

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| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case TR-79 : The system has the ability to log activity and detect security violations

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| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case TR-80 : The system has the ability to utilize network components (firewall, routers, etc.) to avoid unauthorized network access

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| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case TR-81 : The system has the ability to support Role-based authorizations for both standard transactions and APIs

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| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case TR-82 : The system has the ability to support access control per business function

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| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case TR-83 : The system has the ability to apply industry standard encryption algorithm where necessary (e.g. data transmission during logons, sensitive data storage, e.g. password)

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| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case TR-84 : The system has the ability to provide logging mechanism to trace system problems

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| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case TR-85 : The system has the ability to be accessed through safe protocol e.g. HTTPS, SSL for web communication

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| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case TR-86 : Ability to configure account expiration information and session timeouts after a predetermined amount of inactivity.

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| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case TR-87 : The system has ability / support 2 two factor authentication (ex : OTP via SMS / WA / Email)

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| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case TR-88 : Ability to support single sign-on / Oauth using facebook / Google

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| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

# Manage License Compliance

## Test case TR-89 : The system has clear mechanism for license compliance, e.g.: calculation based on # users and/or concurrent user

Condition : Refer to Commercial Proposal

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| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

# Manage system support

## Test case TR-90 : There is 24/7 help desk support coverage

Condition : Compliance table marked as NO.

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| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case TR-91 : There is capability to provide on-site support if required, based on SLA

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| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |

## Test case TR-92 : System documentation is available and accessible (i.e. online, CD, etc.), to be provided as part of deliverables

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| **Performed By Role** | **Test Scenario Description** | **Pre-Condition** | **Test Steps/Input Data** | **Expected Result/Post Conditions** | **Pass/Fail** | **Remarks** |
| Administrator, Park OIC | To verify whether <requirement details> | N.A. | Step: 1. DoSomething 2. DoSomething 3. | After step 3:  1. ExpectedResult\_1 |  |  |
| **Tested By/Signature:** | |  |  | **Tested On:** |  |  |