

وصل Wasl

Integration Guide for Rental Companies

V1.2

Date: 22/09/2020



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1. Document History

Version	Date	Changes log
1.0	23/06/2020	Initial Version
1.1	15/09/2020	Correcting the description of "Rental Operation Registration Service" where the service should not be utilized by P2P companies.
1.2	22/09/2020	<ul style="list-style-type: none"> - Updated glossary to redefine the related activates in manner that shall eliminates confusion, kindly check the terms: (Rental Companies, eRental Company, P2P Rental) - Adding the term "Rental Operation" to the glossary to define purpose - Updated service catalog descriptions and included a targeted consumer for each - Updated service description for each services section - Add extra description for some the required inputs for P2P vehicles for extra clarifications - Deleted Arabic descriptions so description can not be interrupted in a different way - Updated company tags in relevant tables to concur with the updated glossary - General document alignment enhancement

2. Document Purpose

The purpose of this document is to define the integration requirements specifications between WASL platforms and e-rental companies' systems, this document intended to guide the usability of related web services along with its business requirements and processes.

3. Support

- For Support, contact email: hdw@tga.gov.sa phone: 920000356
- For Business Support, refer to your account manager.
- For regulations inquiries, refer to TGA's web site www.TGA.gov.sa or visit TGA's head office.

4. General Guidelines for Successful Integration

- An e-rental company must be registered in Wasl platform per the procedures (Kindly refer to business support channel).
- A Client-id, App-id and APP-key will be given to each company. These are necessary for integration.
- All requests must use at least TLS 1.2. Using older version might result in connection being dropped.
- All requests will be made to <https://wasl.api.elm.sa/>*
- Do NOT send location data from your mobile app directly. All communication with Wasl platform must be originated from your backend servers.
- All App IDs be kept a secret. Do NOT embed the APP key in your mobile App.
- The e-rental company must pass all eligibility criteria in order to achieve eligibility status in Wasl platform (Check "Rental Companies Eligibility Criteria" table below).

5. Glossary

Title	Description
NIC	National Information Center
WASL	Wasl is an e-platform that aims to link the organizations working in the land transport field with the organizational entities. This enables the Transport General Authority to monitor and control the land transport to raise their level of quality, safety, and security
NAQL	An electronic platform that enables individual workers and establishments in the field of transportation with all its forms to remotely apply for the various licenses necessary to carry out their works and to complete all procedures and process them electronically without having to visit the Transport General Authority or its branches and without the need to print any paper transactions
TGA	Transport General Authority
MOI	Minister of Interior
Absher	Governmental services portal (https://www.absher.sa/)
SAMA	Saudi Arabian Monetary Authority
Rental Companies	A general term that is used to combine the different rental company types (eRental Company, P2P Rental)
eRental Company	Companies that provide e-rental services through smart phone enabled applications "This defines the activity where customers consume such services without having to go to a physical rental company office, instead they go directly to the vehicle and request a rental through a smartphone application"
P2P Rental	Companies who enables peer to peer rental service online "This defines the activity where individuals (general public) register their vehicle on a web/app platform that enables them to rent their vehicle for other individuals"
Rental Operation	The rental operation term is exclusive for eRental companies, which defines the activity in which the customer begins by picking up the vehicles after a successful rental request on the eRental company's app, until the point where he drops off the vehicle and ending the requested rental period
Eligibility	Regulatory (Business Rules) Validation Result
Vehicle Sequence Number	Vehicle sequence number is a unique number that can be found on every Saudi Arabian vehicle license (not to be confused with chassis number)

Rental Companies Eligibility Criteria

Criteria	Specified Success Criteria (If Applicable)
The e-rental company must have a valid MOI number	
The e-rental company must have a valid commercial record number	
E-Rental companies must have the applicable license in Naql portal in order to be manually eligible in Wasl Platform	Please refer to your account manager at Elm.

6. Services Catalog

1 Vehicle Registration Service

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This is service shall be utilized by rental companies in case of registering a new vehicle, it is also utilized for cases that requires re-registration/updating vehicle information.

Target: Rental Companies (eRental, P2P)

2 Vehicle Eligibility Inquiry Service

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This service shall be utilized by rental companies to check the eligibility status of a specific vehicle that were registered through "Vehicle Registration Service" to inquire about any updates regarding its validation result.

Target: Rental Companies (eRental, P2P)

3 Rental Operation Registration Service

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This service shall be utilized by eRental companies to send the rental operation information to Wasl Platform after its completion.

Target: eRental Companies Only

4 Update Current Location

This service shall be utilized by eRental companies to send the live location of their vehicles while it is stationary (Not Rented).

Target: eRental Companies Only

6.1 Vehicle Registration Service

Description This is service shall be utilized by rental companies in case of registering a new vehicle, it is also utilized for cases that requires re-registration/updating vehicle information.

Target: Rental Companies (eRental, P2P)

Service Details:

URL	https://wasl.api.elm.sa/api/eRental/v1/vehicles
Method	POST
Headers	Content-Type: application/json client-id: [CLIENT ID GIVEN BY ELM FOR THE E-RENTAL COMPANY] app-id: [APP ID GIVEN BY ELM FOR THE E-RENTAL COMPANY] app-key: [APP KEY GIVEN BY ELM FOR THE E-RENTAL COMPANY]
Request Body	<pre>{ "ownerIdentityNumber": "1234568790", "ownerDateOfBirthHijri": "1420-01-01", "ownerDateOfBirthGregorian": "1999-04-17", "sequenceNumber": "123456879", "plateLetterRight": " ", "plateLetterMiddle": " ", "plateLetterLeft": " ", "plateNumber": "1234", "plateType": "1" }</pre>
Response Body	<pre>{ "success": true, "resultCode": "success", "result": { "eligibility": "VALID", } }</pre>
Request Schema	<pre>{ "ownerIdentityNumber": <String>, "ownerDateOfBirthHijri": <String>, "ownerDateOfBirthGregorian": <String>, "sequenceNumber": <String>, "plateLetterRight": <String>, "plateLetterMiddle": <String>, "plateLetterLeft": <String>, "plateNumber": <String>, "plateType": <String> }</pre>
Response Schema	<pre>{ "success": <Boolean>, "resultCode": <String>, "result": { "eligibility": <String>, "rejectionReasons": <String>, } }</pre>

Service Body Fields Specifications:

Field Name	Data Type	M/O	Description
ownerIdentityNumber	String	Mandatory for Rental P2P companies	Owner's national identity number to identify vehicle ownership for individuals renting their vehicles in P2P apps, this is not required for eRental Companies
ownerDateOfBirthHijri	String	Mandatory for Rental P2P companies	Date of birth in Hijri to identify vehicle ownership for individuals renting their vehicles in P2P apps, this is not required for eRental Companies
ownerDateOfBirthGregorian	String	Optional for Rental P2P companies	Date of birth in Gregorian
sequenceNumber	String	Mandatory	Vehicle's sequence number (Not to be confused with chassis number)
plateLetterRight	String	Mandatory	Vehicle's plate right letter
plateLetterMiddle	String	Mandatory	Vehicle's plate middle letter
plateLetterLeft	String	Mandatory	Vehicle's plate left letter
plateNumber	String	Mandatory	Vehicle's plate number
plateType	Integer	Mandatory	Vehicle's plate type (Refer to appendix for plate types list)

Service Output Specifications:

Field Name	Data Type	Description
success	Boolean	Returns true if succeeded.
resultCode	String	Refer to appendix for result codes
result		
eligibility	String	Refer to appendix for eligibilities
rejectionReasons	String	Refer to appendix for rejection reasons

Vehicle Eligibility Validation Rules:

Vehicle Validation Rules

Please refer to the announced business rules by TGA for a complete overview, below are specific and required validations that takes place in Wasl Platform when the Vehicle Registration Service is called.

Rule Code	Rule	Related company Type
BR01	Vehicle must have a valid operating card in order to be eligible in Wasl Platform	eRental Company
BR02	Vehicle must have a valid “private type” license in order to be eligible in Wasl Platform	P2P Rental
BR03	Vehicle must have a valid period check test in order to be eligible in Wasl Platform	P2P Rental
BR04	Vehicle must have a valid insurance “full coverage type” in order to be eligible in Wasl Platform	P2P Rental
BR05	Vehicle must be owned by a Saudi citizen or a Non-Saudi who have a Saudi mother in order to be eligible in Wasl Platform	P2P Rental
BR06	Owners of the vehicle must have a valid national ID or Iqama	P2P Rental
BR07	Vehicle age must not exceed 5 years from January of the manufacturing year	P2P Rental
BR08	Vehicle owners can only register one vehicle for rental	P2P Rental

Service Examples:

Scenario	Successfully registering a legal vehicle
Input	<pre>{ "ownerIdentityNumber": "1234568790", "ownerDateOfBirthHijri": "1420-01-01", "ownerDateOfBirthGregorian": "1999-04-17", "sequenceNumber": "123456879", "plateLetterRight": " ", "plateLetterMiddle": " ", "plateLetterLeft": " ", "plateNumber": "1234", "plateType": "1" }</pre>
Output	<pre>{ "success": true, "resultCode": "success", "result": { "eligibility": "VALID", } }</pre>

Scenario	Successfully registering a vehicle with illegal status
Input	<pre>{ "ownerIdentityNumber": "1234568790", "ownerDateOfBirthHijri": "1420-01-01", "ownerDateOfBirthGregorian": "1999-04-17", "sequenceNumber": "123456879", "plateLetterRight": " ", "plateLetterMiddle": " ", "plateLetterLeft": " ", "plateNumber": "1234", "plateType": "1" }</pre>
Output	<pre>{ "success": true, "resultCode": "success", "result": { "eligibility": "INVALID", "rejectionReason": "VEHICLE_LICENSE_EXPIRED" } }</pre>

Scenario	Registration failure due to incorrect owner identity number or date of birth
Input	<pre>{ "ownerIdentityNumber": "1234568790", "ownerDateOfBirthHijri": "1420-01-02", "ownerDateOfBirthGregorian": "1999-04-18", "sequenceNumber": "123456879", "plateLetterRight": " ", "plateLetterMiddle": " ", "plateLetterLeft": " ", "plateNumber": "1234", "plateType": "1" }</pre>
Output	<pre>{ "success": false, "resultCode": "OWNER_NOT_FOUND" }</pre>

Scenario	Registration failure due to incorrect sequence number or plate
Input	<pre>{ "ownerIdentityNumber": "1234568790", "ownerDateOfBirthHijri": "1420-01-01", "ownerDateOfBirthGregorian": "1999-04-17", "sequenceNumber": "123456879", "plateLetterRight": " ", "plateLetterMiddle": " ", "plateLetterLeft": " ", "plateNumber": "1235", "plateType": "1" }</pre>
Output	<pre>{ "success": false, "resultCode": "VEHICLE_NOT_FOUND" }</pre>

Scenario	Registration failure due to missing field
Input	<pre>{ "ownerIdentityNumber": "1234568790", "ownerDateOfBirthHijri": "1420-01-01", "ownerDateOfBirthGregorian": "1999-04-17", "sequenceNumber": "123456879", "plateLetterRight": " ", "plateLetterMiddle": " ", "plateLetterLeft": " ", "plateNumber": "1234" }</pre>
Output	<pre>{ "success": false, "resultCode": "bad_request", "resultMsg": "plateType must not be null" }</pre>

Service Remarks:

Remarks

- 1) The ownerIdentityNumber is the National ID number for Vehicle Owner.
- 2) Date of birth Hijri and Gregorian must be in the format (yyyy-MM-dd). Only one of the two fields needs to be entered.
- 3) Refer to appendix for a complete list of all result codes.
- 4) The **eligibility** field refer to the legal status of the vehicle. An "INVALID" value indicates that this vehicle did not pass Wasl check and must not be allowed to make rental operations.
- 5) To re-evaluate a vehicle's legal status, you may call this service again. Example: upon registering a vehicle with expired license, the returned "eligibility" field was "INVALID". The vehicle's Owner then renewed his vehicle license but Wasl still considers it invalid. To re-evaluate the legal status, call the registration service again and the vehicle's legal status will be updated to reflect the latest changes.

Note: calling the registration service multiple times will only refresh the legal status, the vehicle will never be registered twice.

6.2 Vehicle Eligibility Inquiry Service

Description This service shall be utilized by rental companies to check the eligibility status of a specific vehicle that were registered through "Vehicle Registration Service" to inquire about any updates regarding its validation result.

Target: Rental Companies (eRental, P2P)

Service Details:

URL	https://wasl.api.elm.sa/api/eRental/v1/inquiry/vehicles? plate={arabicPlate}&sequenceNumber={number}
Method	GET
Headers	Content-Type: application/json client-id: [API KEY GIVEN BY ELM FOR THE E-RENTAL COMPANY] app-id: [APP ID GIVEN BY ELM FOR THE E-RENTAL COMPANY] app-key: [APP KEY GIVEN BY ELM FOR THE E-RENTAL COMPANY]
URL Example	https://wasl.api.elm.sa/api/eRental/v1/inquiry/vehicles?plate=5553 م م &sequenceNumber=123456789 Note: For Arabic Plate - Type Arabic letters first and then plate number
Response Body Example 1	<pre>{ "success": true, "resultCode": "success", "result": { "vehicleEligibility": "VALID", "registrationTime": "2020-06-24T17:44:07.709", "operatingCardExpiryDate": "2022-12-12" } }</pre>
Response Body Example 2	<pre>{ "success": true, "resultCode": "success", "result": { "vehicleEligibility": "VALID", "registrationTime": "2020-06-24T17:44:07.709", "operatingCardExpiryDate": "2022-12-12", "rejectionReasons": "VEHICLE_LICENSE_EXPIRED" } }</pre>
Response Body Example 3	<pre>{ "success": false, "resultCode": "bad_request", "resultMsg": "vehicle_not_found" }</pre>

```

Response Schema
{
    "success": <Boolean>,
    "resultCode": <String>,
    "result": {
        "vehicleEligibility": <String>,
        "registrationTime ": <String>,
        "operatingCardExpiryDate ": <String>,
        "rejectionReasons": <String>,
    }
}

```

Service Output Specifications:

Field Name	Data Type	Description
success	Boolean	Returns true if succeeded.
resultCode	String	Refer to appendix for result codes
result		
vehicleEligibility	String	Refer to appendix for eligibilities
rejectionReasons	String	Refer to appendix for rejection reasons
registrationTime	String	Vehicle Sequence Number
operatingCardExpiryDate	String	Refer to appendix for vehicle eligibility
rejectionReasons	String	Refer to appendix for vehicle rejection reasons

Service Remarks:

Remarks

- 1) This service will return the eligibility of a specific vehicle registered under the requesting company.
- 2) The response will return a single vehicle specified by its sequence number and its status in Wasl, either "VALID" or "INVALID".
- 3) Rejection reasons will be included when the vehicle is "INVALID".

6.3 Rental Operation Registration Service

Description This service shall be utilized by eRental companies to send the rental operation information to Wasl Platform after its completion.

Target: eRental Companies Only

Service Details:

URL	https://wasl.api.elm.sa/ api/eRental/v1/rental-operation
Method	POST
Headers	Content-Type: application/json client-id: [API KEY GIVEN BY ELM FOR THE E-RENTAL COMPANY] app-id: [APP ID GIVEN BY ELM FOR THE E-RENTAL COMPANY] app-key: [APP KEY GIVEN BY ELM FOR THE E-RENTAL COMPANY]
Request Body	<pre>{ "sequenceNumber": "532704112", "companyRentalOperationId": "9CF2F0B0-9014-49B3-911F", "pickupLatitude": 24.723437, "pickupLongitude": 46.117452, "dropoffLatitude": 24.763437, "dropoffLongitude": 46.547452, "pickupTimeStamp": "2016-03-28T09:00:00.000", "dropoffTimeStamp": "2016-03-28T09:15:00.000", "rentalVehicleOccupationPeriodInMinutes": 42145, "customerVehicleRating": 5.0, "customerServiceRating": 4.0 }</pre>
Response Body	<pre>{ "success": true, "resultCode": "success" }</pre>
Request Schema	<pre>{ "sequenceNumber": <String>, "companyRentalOperationId": <String>, "pickupLatitude": <Double>, "pickupLongitude": <Double>, "dropoffLatitude": <Double>, "dropoffLongitude": <Double>, "pickupTimeStamp": <String>, //ISO 8601 "dropoffTimeStamp": <String>, //ISO 8601 "rentalVehicleOccupationPeriodInMinutes": <Integer>, "customerVehicleRating": <Double>, "customerServiceRating": <Double> }</pre>
Response Schema	<pre>{ "success": <Boolean>, "resultCode": <String> }</pre>

Service Body Fields Specifications:

Field Name	Data Type	M/O	Description
sequenceNumber	String	Mandatory	Vehicle sequence number.
companyRentalOperationId	String Max length = 90	Mandatory	The unique rental operation id generated by the e-rental company should be identical to the rental operation id on their records.
pickupLatitude	Double Min = 90, Max = 90	Mandatory	Vehicle pickup Latitude.
pickupLongitude	Double Min = 90, Max = 90	Mandatory	Vehicle pickup Longitude.
dropoffLatitude	Double Min = 90, Max = 90	Mandatory	Vehicle drop off Latitude.
dropoffLongitude	Double Min = 90, Max = 90	Mandatory	Vehicle drop off Longitude.
pickupTimeStamp	String ISO 8601	Mandatory	The time when the renter picked up the vehicle.
dropoffTimeStamp	String ISO 8601	Mandatory	The time when the renter dropped off the vehicle.
rentalVehicleOccupationPeriodInMinutes	Integer	Mandatory	Rental duration in minutes.
customerVehicleRating	Double	Optional	Customer rating of the vehicle (out of 5).
customerServiceRating	Double	Mandatory	Customer rating of the service (out of 5).

Service Output Specifications:

Field Name	Data Type	Description
success	Boolean	Returns true if succeeded
resultCode	String	Refer to appendix for result codes

Service Remarks:

Remarks

- 1) Customer Vehicle rating should be out of 5 (Customer rating of the Vehicle for a specific rental operation).
- 2) Customer Service rating should be out of 5 (Customer rating of the Service for a specific rental operation).
- 3) Vehicle must be already registered in Wasl.

6.4 Update Current Location

Description This service shall be utilized by eRental companies to send the live location of their vehicles while it is stationary (Not Rented).

Target: eRental Companies Only

Service Details:

URL	https://wasl.api.elm.sa/api/eRental/v1/locations
Method	POST
Headers	Content-Type: application/json client-id: [API KEY GIVEN BY ELM FOR THE E-RENTAL COMPANY] app-id: [APP ID GIVEN BY ELM FOR THE E-RENTAL COMPANY] app-key: [APP KEY GIVEN BY ELM FOR THE E-RENTAL COMPANY]
Request Body	<pre>{ "locations": [{ "vehicleSequenceNumber": "123456789", "latitude": 24.723437, "longitude": 46.117452, "updatedWhen": "2019-01-28T09:15:00.000", "hasCustomer": 0 }, { "vehicleSequenceNumber": "987654321", "latitude": 24.723437, "longitude": 46.117452, "updatedWhen": "2019-01-28T09:15:00.000", "hasCustomer": 0 }] }</pre>
Response Body	<pre>{ "success": true, "resultCode": "fail", "result": { "failedVehicles": [{ "sequenceNumber": "987654321", "reason": "vehicle_not_found" }] } }</pre>
Request Schema	<pre>{ "locations": [{ "vehicleSequenceNumber": <String>, </pre>

	<pre> "latitude": <Double>, "longitude": <Double>, "updatedWhen": <String>, //ISO 8601 "hasCustomer": <Boolean> //true or false }] } </pre>
Response Schema	<pre> { "success": <Boolean>, "resultCode": <String>, "result": { "failedVehicles": [{ "sequenceNumber": <String>, "reason": <String>, }] } } </pre>

Service Body Fields Specifications:

Field Name	Data Type	M/O	Description
locations[]			
vehicleSequenceNumber	String	Mandatory	Vehicle's sequence number
latitude	Double	Mandatory	Location's latitude
longitude	Double	Mandatory	Location's longitude
updatedWhen	String	Mandatory ISO 8601	Actual timestamp for the location
hasCustomer	String	Mandatory	Vehicle currently has customer or not (true or false)

Service Output Specifications:

Field Name	Data Type	Description
success	Boolean	Returns true if succeeded.
resultCode	String	Refer to appendix for result codes.
failedVehicles[]		
sequenceNumber	String	Failed vehicle's sequence number.
reason	String	Reason of location update failure.

Service Remarks:

Remarks

- 1) This service is for eRental company type only.
- 2) The location is updated to "vacant" (hasCustomer = false) while the vehicle is not rented, and when the vehicle is rented and picked up by the customer location must be updated to "occupied" by sending (hasCustomer = true).
- 3) The current location for each vehicle is expected to be updated every 10 minutes when the vehicle is "vacant".
- 4) The current location for each vehicle is expected to be updated one time when the vehicle is picked up by the customer and the vehicle being "occupied".
- 5) This service accepts up to 1000 locations per request. To send more than one location, simply separate each location information by a comma.

7. Appendix

7.1 HTTP Status Codes

Status Code	Description
200	Technical success. Check result Code for any business exception
400	Bad request (External input error)
500	Internal server error (internal system/wasl error)

7.2 Result Codes

Code	Description	Related Company Type
success	Technical Success	All
bad_request	Defined in "resultMsg"	All
VEHICLE_NOT_FOUND	Vehicle information is not correct/ kindly revise input data before re-attempting registration	All
OWNER_NOT_FOUND	Vehicle's owner information is not correct/ kindly revise input data before re-attempting registration	P2P
OWNER_HAS_ANOTHER_REGISTERED_VEHICLE	Refer to Vehicle Eligibility Validation Rules table, code: BR08	P2P
CONTACT_WASL_SUPPORT	System internal error/missing data, kindly contact Wasl Support (check support section in page 3)	All
VEHICLE_PLATE_TYPE_NOT_ALLOWED	Vehicle's plate type is not allowed, please refer to Vehicle Eligibility Validation Rules table, code: BR02	P2P
OLD_VEHICLE_MODEL	Refer to Vehicle Eligibility Validation Rules table, code: BR07	P2P

OWNER_IS_NOT_SAUDI_AND_HAVE_NO_SAUDI_MOTHER	Refer to Vehicle Eligibility Validation Rules table, code: BR05	P2P
OWNER_ID_MISMATCHED	Owner Id in the request is different from the one in NIC	P2P
OWNER_ID_MUST_NOT_BE_NULL	No Owner Id received	P2P
DATE_OF_BIRTH_MUST_NOT_BE_NULL	No Owner date of birth received	P2P

7.3 Vehicle Eligibility

Code	Description
VALID	Vehicle is eligible
INVALID	Vehicle is ineligible

7.4 Rejection Reasons

Code	Description
VEHICLE_INSURANCE_EXPIRED	Vehicle's insurance has expired
VEHICLE_NOT_INSURED	Vehicle does not have a valid insured
VEHICLE_HAS_NO_FULL_COVERAGE_INSURANCE	Vehicle does not have full coverage insurance
VEHICLE_LICENSE_EXPIRED	Vehicle's license has expired
PERIODIC_INSPECTION_POLICY_EXPIRED	Vehicle's periodic inspection expired
OPERATION_CARD_EXPIRED	Vehicle's operation card expired
NO_VALID_OPERATION_CARD	Vehicle does not have a valid operation card

7.5 Vehicle License Types

Code	Arabic Name	English Name	Applicable for Registration (Rental Company Type only)
1	خاص	Private	Yes
2	نقل عام	Public Transport	No
3	نقل خاص	Private Transport	No
4	حافلة صغيرة عامة	Public Minibus	No
5	حافلة صغيرة خاصة	Private Minibus	No
6	اجرة	Taxi	No
7	أشغال عامة	Heavy Equipment	No
8	تصدير	Export	No
9	دبلوماسي	Diplomatic	No
10	دراجة نارية	Motorcycle	No
11	مؤقت	Temporary	No

7.6 Vehicle Plate Letters

Arabic Letter
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