

FMCSA API Endpoints Documentation

This documentation describes the FMCSA system endpoints for carrier management, pending documents, and automatic registration from the FMCSA database.

Authentication

Important: All FMCSA endpoints require JWT authentication with administrator profile.

Required headers:

```
Authorization: Bearer {jwt_token}
Content-Type: application/json
```

Note: The JWT token must belong to a user with administrator role. If this condition is not met, a 403 Forbidden error will be returned.

How to Authenticate and Obtain JWT Token

Before using the FMCSA endpoints, you need to authenticate and obtain a valid JWT token with administrator privileges.

Authentication Endpoint

URL: POST {API_BASE_URL}/api/login/moderator

Authentication Request

```
curl -X POST \
  {API_BASE_URL}/api/login/moderator \
  -H 'Content-Type: application/json' \
  -d '{
    "email": "admin@example.com",
    "password": "your_password"
  }'
```

Authentication Response

Successful Authentication (200):

```
{
  "token": "eyJ0eXAiOiJKV1QiLCJhbGciOiJIUzI...\"",
  "user": {
    "Id": "C4F672B6-5541-447E-93B4-4A9F5E46B22A",
    "Email": "admin@example.com",
    "EmailVerifiedAt": "2024-05-15 16:55:43.637",
    "IdCarrier": null,
    "IdDriver": null,
    "OneSignalId": null,
    "created_at": "2024-05-15T19:55:43.637000Z",
    "updated_at": "2025-07-18T15:57:03.859000Z",
    "deleted_at": null,
    "LastRequirementUploadTime": null,
    "IdUserStatus": 1,
    "HasChangedRole": 0,
    "OnboardingComplete": 0,
    "OnboardingStep": 0,
    "LastConnection": "2025-07-18T15:57:03.859482Z",
    "IdShipper": null,
    "IsActive": 1,
    "IdCountry": 1,
    "IdLanguage": 1,
    "HashForSetPassword": null,
    "roles": [
      {
        "Id": 1,
        "Description": "Admin",
        "pivot": {
          "IdUser": "C4E672B6-5541-449E-93B4-4A9F6E46A29A",
          "IdRole": 1
        }
      }
    ],
    "user_status": {
      "Id": 1,
      "Description": "No upload requirements"
    },
    "entities": [],
    "language": {
      "Id": 1,
      "Description": "EN"
    },
    "country": {
      "Id": 1,
      "Description": "EEUU"
    }
  }
}
```

Using the Token

Once you obtain the JWT token, include it in all FMCSA API requests:

```
curl -X POST \
  {API_BASE_URL}/api/fmcsa/find-by-dot-email \
  -H 'Authorization: Bearer eyJ0eXAiOiJKV1QiLCJhbGciOiJIUzI...' \
  -H 'Content-Type: application/json' \
  -d '{
    "dot_number": "1234567",
    "email": "carrier@example.com"
  }'
```

Token Management

- **Token Format:** JWT tokens contain the user GUID in the payload: `{"id": "C4E672B6-5541-449E-93B4-4A9F6E46A29A"}`
- **User ID:** User IDs are UUIDs/GUIDs, not integers
- **Token Refresh:** Use the refresh endpoint `GET {API_BASE_URL}/api/login/{userId}` to get updated user information
- **Role Verification:** The system checks `user.roles` array where admin role has `Id: 1` and `Description: "Admin"`
- **Driver Restriction:** Users with only "driver" role are not allowed to authenticate via this endpoint
- **Response Format:** Direct JSON response (no `status` or `data` wrapper)

Base URL

```
{API_BASE_URL}/api/fmcsa/
```

1. Find Carrier by DOT and Email

Endpoint: `POST /api/fmcsa/find-by-dot-email`

Description: Searches for a carrier in the FMCSA database using the provided DOT number and email.

Input parameters:

```
{
  "dot_number": "string (required, max: 10)",
  "email": "string (required, email format, max: 100)",
  "language": "string (optional, values: 'en'|'es', default: 'en')"
}
```

Request example:

```
curl -X POST \
  {API_BASE_URL}/api/fmcsa/find-by-dot-email \
  -H 'Authorization: Bearer eyJ0eXAiOiJKV1QiLCJhbGciOiJIUzI1NiJ9...' \
  -H 'Content-Type: application/json' \
  -d '{
    "dot_number": "1234567",
    "email": "carrier@example.com",
    "language": "en"
  }'
```

Successful responses (200):

```
{
  "data": {
    "dot_data": {
      "number": "1234567",
      "country": "US",
      "name": "EXAMPLE TRUCKING LLC",
      "email": "carrier@example.com",
      "telephone": "555-123-4567",
      "cellphone": "555-987-6543",
      "address": "123 MAIN ST",
      "city": "ANYTOWN",
      "state": "TX",
      "zip": "12345"
    },
    "is_registered_carrier": true,
    "registered_carrier_data": {
      "registered_email": "carrier@kargho.com",
      "registered_legal_name": "Example Trucking LLC"
    }
  }
}
```

Error responses:

422 - Validation Error:

```
{
  "error": {
    "message": "The dot number field is required.",
    "message_code": "FMCSA_001",
  },
  "error_code": 404
}
```

404 - Carrier Not Found:

```
{
  "error": {
    "message": "Carrier not found with the provided DOT number and email",
    "message_code": "FMCSA_100"
  },
  "error_code": 404
}
```

2. Get Pending Documents

Endpoint: POST /api/fmcsa/pending-documents

Description: Gets the list of pending documents for a carrier registered in the system. The DOT country is automatically obtained from the FMCSA database.

Input parameters:

```
{
  "dot_number": "string (required, max: 10)",
  "language": "string (optional, values: 'en'|'es', default: 'en')"
}
```

Request example:

```
curl -X POST \
  {API_BASE_URL}/api/fmcsa/pending-documents \
  -H 'Authorization: Bearer eyJ0eXAiOiJKV1QiLCJhbGciOiJIUzI1NiJ9...' \
  -H 'Content-Type: application/json' \
  -d '{
    "dot_number": "1234567",
    "language": "es"
  }'
```

Successful responses (200):

```
{
  "data": {
    "dot_number": "1234567",
    "country": "us",
    "pending_documents_info": {
      "has_pending_documents": true,
      "pending_documents": [
        {
          "id": 1,
          "code": "CDL",
          "description": "Commercial Driver's License",
          "priority": 1,
          "status": "missing",
          "reason": "Document not uploaded"
        },
        {
          "id": 2,
          "code": "VR",
          "description": "Vehicle Registration",
          "priority": 2,
          "status": "missing",
          "reason": "Document not uploaded"
        }
      ],
      "total_pending": 2
    }
  }
}
```

When no pending documents:

```
{
  "data": {
    "dot_number": "1234567",
    "country": "us",
    "pending_documents_info": {
      "has_pending_documents": false,
      "pending_documents": [],
      "total_pending": 0
    }
  }
}
```

Error responses:

404 - Carrier Not Registered:

```
{
  "error": {
    "message": "Carrier is not registered in the system",
    "message_code": "FMCSA_103"
  },
  "error_code": 404
}
```

500 - No Requirements Defined:

```
{
  "error": {
    "message": "No requirements defined for this country",
    "message_code": "FMCSA_104"
  },
  "error_code": 404
}
```

3. Send Pending Documents Email

Endpoint: POST /api/fmcsa/send-pending-documents-email

Description: Sends an email to the carrier with the list of pending documents. The carrier's email is automatically obtained from the system database. Only sends the email if pending documents exist.

Input parameters:

```
{
  "dot_number": "string (required, max: 10)",
  "language": "string (optional, values: 'en'|'es', default: 'en')"
}
```

Request example:

```
curl -X POST \
  {API_BASE_URL}/api/fmcsa/send-pending-documents-email \
  -H 'Authorization: Bearer eyJ0eXAiOiJKV1QiLCJhbGciOiJIUzI1NiJ9...' \
  -H 'Content-Type: application/json' \
  -d '{
    "dot_number": "1234567",
    "language": "en"
  }'
```

Successful responses (200):

With pending documents (email sent):

```
{
  "data": {
    "message": "Pending documents email sent successfully",
    "email": "carrier@example.com",
    "dot_number": "1234567",
    "company_name": "Example Trucking LLC",
    "documents_count": 3,
    "email_sent": true
  }
}
```

Without pending documents (email not sent):

```
{
  "data": {
    "message": "No pending documents found. Email not sent.",
    "email": "carrier@example.com",
    "dot_number": "1234567",
    "company_name": "Example Trucking LLC",
    "documents_count": 0,
    "email_sent": false
  }
}
```

Error responses:

404 - Carrier Not Found:

```
{
  "error": {
    "message": "Carrier not found with the provided DOT number",
    "message_code": "FMCSA_100"
  },
  "error_code": 404
}
```

4. Register Carrier from FMCSA

Endpoint: POST /api/fmcsa/register-carrier

Description: Registers a new carrier in the system using FMCSA database data. Automatically sends a welcome email with access credentials. The country is automatically obtained from the FMCSA database.

Input parameters:

```
{
  "dot_number": "string (required, max: 10)",
  "email": "string (required, email format, max: 255)",
  "language": "string (optional, values: 'en'|'es', default: 'en')"
}
```

Request example:

```
curl -X POST \
  {API_BASE_URL}/api/fmcsa/register-carrier \
  -H 'Authorization: Bearer eyJ0eXAiOiJKV1QiLCJhbGciOiJIUzI1NiJ9...' \
  -H 'Content-Type: application/json' \
  -d '{
    "dot_number": "1234567",
    "email": "newcarrier@example.com",
    "language": "es"
  }'
```

Successful responses (200):

```
{
  "data": {
    "message": "Carrier registered successfully",
    "data": {
      "user_id": 123,
      "carrier_id": 456,
      "dot_number": "1234567",
      "email": "newcarrier@example.com",
      "company_name": "New Trucking Company LLC",
      "dba_name": "NTC",
      "mc_number": "MC-987654",
      "company_phone": "555-123-4567",
      "company_email": "info@newtruck.com",
      "job_address": "123 Business Ave, Houston, TX 77001",
      "default_password": "abc123xy"
    }
  }
}
```

Error responses:

409 - DOT Already Registered:

```
{
  "error": {
    "message_code": "FMCSA_108",
    "message": "DOT number is already registered in the system"
  },
  "error_code": 404
}
```

409 - Email Already Exists:

```
{
  "error": {
    "message_code": "FMCSA_107",
    "message": "Email address is already in use"
  },
  "error_code": 404
}
```

404 - DOT Details Not Found:

```
{
  "error": {
    "message_code": "FMCSA_106",
    "message": "DOT number details not found in FMCSA database"
  },
  "error_code": 404
}
```

Common Error Codes

Validation Errors (422):

- FMCSA_001 : DOT number is required
- FMCSA_002 : DOT number must be a string
- FMCSA_003 : DOT number maximum length exceeded
- FMCSA_004 : Email is required
- FMCSA_005 : Email format is invalid
- FMCSA_006 : Email maximum length exceeded

Business Logic Errors:

- FMCSA_100 : Carrier not found
- FMCSA_103 : Carrier not registered in system
- FMCSA_104 : No requirements defined for country
- FMCSA_105 : DOT number not found in FMCSA database
- FMCSA_106 : DOT number details not found in FMCSA database
- FMCSA_107 : Email already exists
- FMCSA_108 : DOT already registered

Server Errors (500):

- FMCSA_102 : Internal server error

Automatic Country Configuration

Important: All endpoints automatically obtain the country from the `FMCSA.dbo.FMCSADots.phyCountry` table:

- Country codes are stored in uppercase in the database (US, AR, etc.)
- They are automatically converted to lowercase for processing (us, ar, etc.)
- If the country is not found, 'us' is assumed by default

Supported Country Mapping:

- us (1): United States
- ar (2): Argentina

Development Considerations

1. **Authentication:** All endpoints require JWT with administrator role
2. **Languages:** Supports English ('en') and Spanish ('es')
3. **Emails:** Emails are sent in the specified language using multilingual templates
4. **Logging:** All errors are logged in the system logs
5. **Validation:** Email format, DOT number length, etc. are validated
6. **Automation:** Country and carrier emails are automatically obtained from the database

Testing

All endpoints are prepared for testing. It is recommended to use specific test data and verify both successful and error cases.