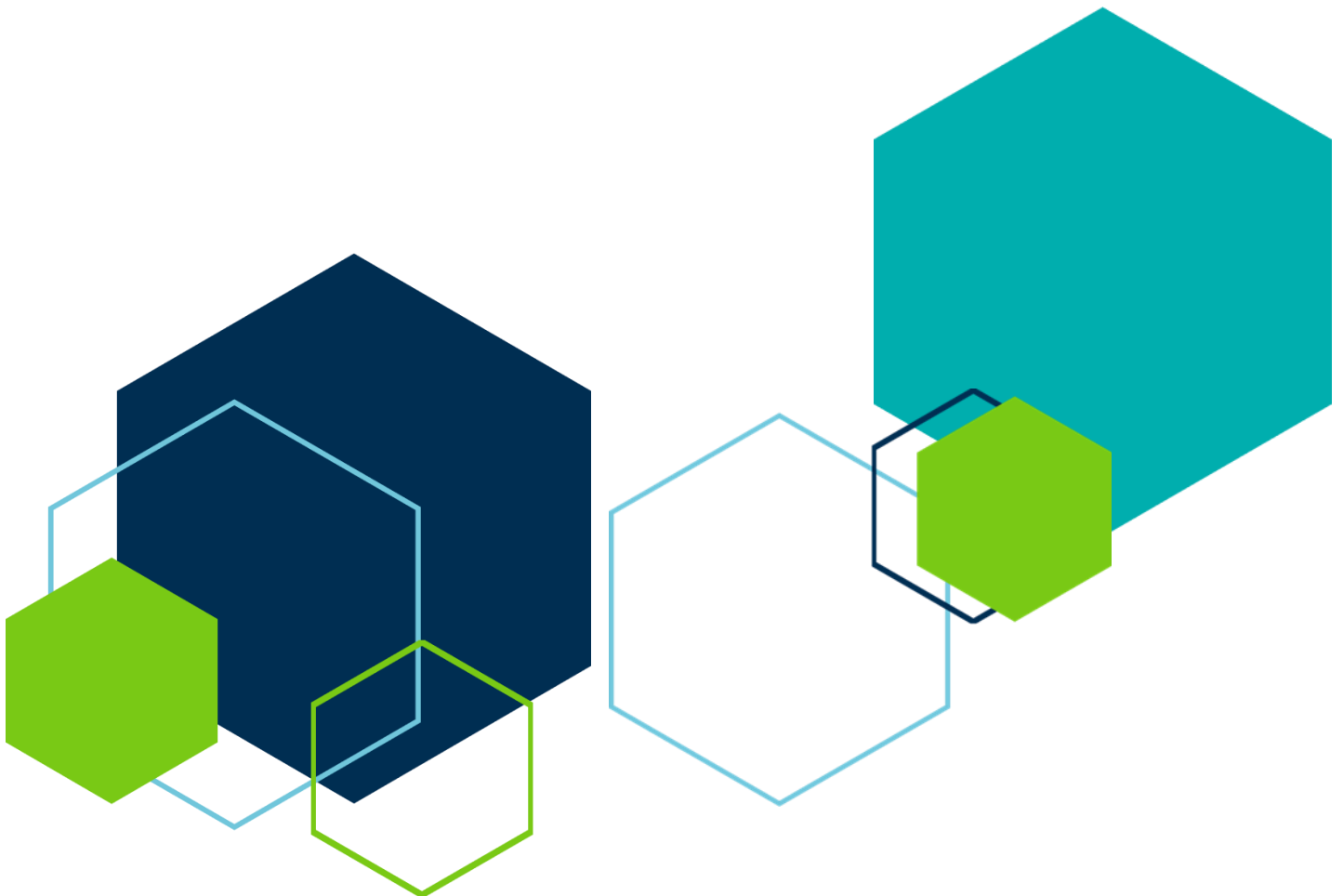


# Life Events Monitoring Alerts (LEMA) API Reference Guide

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### About Life Events Monitoring Alerts (LEMA)

The Fenris Life Events Monitoring and Alerts (LEMA) service alerts insurers at "just the right time" to connect with policyholders who are currently experiencing major life changes, allowing them to capitalize on cross-selling and upsell opportunities. LEMA delivers daily alerts to reduce customer acquisition costs and enhance customer relationships.

#### How does this work?

LEMA leverages Fenris' datasets of 255+ million adults and 130+ million households to identify and create alerts for the significant life events that policyholders (referred to as subscribers in this document) periodically experience, such as:

- Pre-movers and New movers,
- Newly single or married, and
- New children being expected and born

This document shows how to use the LEMA API to add, change, and delete subscriber records as they change over time. Fenris also provides an endpoint to get a list of changes for subscribed persons on demand.

#### What are the benefits?

LEMA monitors an insurer's list of policyholders and provides daily alerts that allow insurers to plan and implement campaigns on-the-fly.

Through LEMA, Fenris can also provide insurance organizations with email alerts that agents then use to schedule high-touch, personalized outreach to current and potential customers.

Fenris APIs can also easily integrate with the systems that digitally-savvy insurance companies use to target and personalize customer engagements, such as marketing outreach solutions.



## Add or update a single subscribed person's information

Add or change an existing life event for a subscribed person in LEMA. Request returns whether the entry was added or updated and the method for determining the match.

**POST**

*https://api.fenrisd.com/services/subscribers*

### Headers

Header	Value	Description
<b>Content-Type</b>	application/json	The body is in JSON format, using UTF-8 character encoding.
<b>Authorization</b>	Bearer {access_token}	Use the token from the <a href="#">Authentication</a> call.
<b>Submission-Id</b>	<string>	Passthrough field: A client-specified identifier that ties back to client data or systems; If not supplied, use an auto-generated field.

### Body

Field	Required?	Value	Description
<b>subscriberId</b>	<b>Required</b>	<string>	Unique identifier supplied by the client to refer to the person: All system returned information references this identifier.
<b>person</b>	<b>Required</b>	< <a href="#">Person</a> >	Given name(s) of the primary insured individual: See <a href="#">Custom Classes</a> for a description of this value.
<b>address</b>	<b>Required</b>	< <a href="#">Address</a> >	Standardized street address of the primary insured individual: See <a href="#">Custom Classes</a> for a description of this value.



## Response

Field	Value	Description
<b>status</b>	<string>	Status of request: ADDED ENTRY, UPDATED, or NO UPDATE REQUIRED. See <a href="#">Appendix B</a> for details.
<b>matchDescription</b>	<string>	Description of match logic used: See <a href="#">Appendix B</a> for details.
<b>submissionId</b>	<string>	A client-specified identifier that ties back to client data and systems; If not supplied, return the requestId
<b>requestId</b>	<string>	An internally-generated unique ID used for auditing and support

## Example Response

```
{
  "requestId": "8128ef20-0a1f-4bf0-985b-aa13bfaeaaf0",
  "submissionId": "abcd-efgh-ijkl",
  "status": "ADDED ENTRY",
  "matchDescription": "Default match logic"
}
```

## Errors

Code	Text message	Description and how to fix it
401	Unauthorized	The client's request was not completed because it lacks valid authentication credentials for the requested resource.
404	Not Found	The requested resource is not available.



## Delete subscribed person from the watched set

Remove a subscribed person from people you are watching. Request returns confirmation of the deletion.

**DELETE**`https://api.fenrisd.com/services/lifeevents/v1/subscription/{subscriberId}`

### Headers

Header	Value	Description
<b>Content-Type</b>	application/json	The body is in JSON format, using UTF-8 format character encoding.
<b>Authorization</b>	Bearer {access_token}	Use the token from the <a href="#">Authentication</a> call.
<b>Submission-Id</b>	<string>	Passthrough field: A client-specified identifier that ties back to client data or systems; If not supplied, use an auto-generated field.

### Path Parameter

Field	Value	Description
<b>subscriberId</b>	<string>	The client-supplied identifier of a person in the subscription list

### Response

Field	Value	Description
<b>status</b>	<string>	Status of request will be the string DELETED. Note that if subscriberId is not found, the http status 404 NOT FOUND is returned instead of 200 Success.
<b>submissionId</b>	<string>	A client-specified identifier that ties back to client data and systems: If not supplied, return the requestId

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<b>requestId</b>	<string>	An internally-generated unique ID used for auditing and support
------------------	----------	---

---

### Example Response

```
{
  "requestId": "8545018f-44fc-43e6-9604-7abdcc050014",
  "submissionId": "abcd-efgh-ijkl",
  "status": "DELETED"
}
```

### Errors

Code	Text message	Description and how to fix it
401	Unauthorized	The client's request was not completed because it lacks valid authentication credentials for the requested resource.
404	Not Found	The requested resource is not available.

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## Bulk add or delete subscribers

You may also request to add a list of subscribed individuals. Populating that collection via batch SFTP is quick and reliable. Each entry from you must contain a unique subscriberId. All communication back to you on the status of the individual will be keyed on the subscriberId. Fenris applies its specialized search logic to assign a unique ID associated with the Fenris reference data based on the input name and address. Once the FenrisId is generated all PII from the submitted list will be deleted from the Fenris systems. Neither the name or address is saved in the subscription table. You provide a text file in comma delimited format, i.e. \*.csv. Use double quotes as field qualifiers. If you're interested in this option, please discuss with your customer success representative.

The table below provides the schema of the text file:

### CSV Schema

Field	Required?	Description
<b>Action</b>	<b>Required</b>	ADD or DELETE – Add updates to an existing record. If this field is not present, processing adds all records.
<b>SubscriberID</b>	<b>Required</b>	A unique string that helps to identify the person in the client's systems.
<b>firstName</b>	<b>Required</b>	Person's first name
<b>middleName</b>	Optional	Person's middle name or initial
<b>lastName</b>	<b>Required</b>	Person's last name
<b>dateOfBirth</b>	Optional	Person's date of birth in MM/DD/YYYY format
<b>addressLine1</b>	<b>Required</b>	The standard street and unit elements of an address
<b>addressLine2</b>	Optional	Additional address information, appended to the address line for processing, if present
<b>city</b>	Optional	City name – either zipCode or city must be present
<b>state</b>	Optional	Two-character state abbreviation
<b>zipCode</b>	Optional	Five-digit postal code – either zipCode or city must be present



## Get life events for all subscribed persons

Retrieve recent life events for all subscribed persons in LEMA. You may search back 1-31 days to view events. Request returns an array of life events per subscriber.

**GET**

*https://api.fenrisd.com/services/lifeevents/v1/events/subscribed*

### Headers

Header	Value	Description
<b>Content-Type</b>	application/json	The body is in JSON format, using UTF-8 character encoding.
<b>Authorization</b>	Bearer {access_token}	Use the token from the <a href="#">Authentication</a> call.
<b>Submission-Id</b>	<string>	Passthrough field: A client-specified identifier used to tie back to client data or systems. If not supplied, use an auto-generated field.

### Query Parameters

Field	Required?	Value	Description
<b>numDays</b>	Optional	<integer>	<p>Returns the number of days to look back to capture new life events. When returning events for all subscribed persons:</p> <ul style="list-style-type: none"> <li>The minimum value is 1.</li> <li>The maximum value is 31.</li> <li>The default value is 14 days.</li> </ul> <p>When returning events for one subscribed person:</p> <ul style="list-style-type: none"> <li>Permissible values are greater than or equal to 0.</li> <li>For zero values, processing returns all available events for the person.</li> <li>The default value is 0.</li> </ul>



## Response

Field	Value	Description
<b>status</b>	<string>	Returns the status of the search: SUCCESS or NO EVENTS FOUND.
<b>requestId</b>	<string>	Returns an Internally generated unique ID used for auditing and support
<b>submissionId</b>	<string>	Returns a client-supplied identifier that ties back to client data or systems: If not supplied, the API uses the requestId.
<b>subscriberIdCount</b>	<integer>	Number of subscribers for which at least one life event was found
<b>subscriberEvents</b>	[< <a href="#">SubscriberLifeEvent</a> >]	An array of subscribers with life events is empty if no life events are found; See <a href="#">Custom Classes</a> for a description of this value.

## Example Response

```
{
  "requestId": "4ecd35d2-e293-4400-946d-1d67183b8737",
  "submissionId": "abcd-efgh-ijkl",
  "status": "SUCCESS",
  "subscriberIdCount": 10,
  "subscriberEvents": [
    {
      "subscriberId": "ABCD12345678",
      "events": [
        {
          "eventType": "NEW MOVER",
          "eventDate": "2021-07-24",
          "processDate": "2021-07-25",
          "otherData": {
            "previousAddress": {
              "addressLine1": "1102 N 9TH ST TRLR 4",
              "city": "MAGNOLIA",
              "state": "TX",
              "zipCode": "77354"
            }
          }
        }
      ]
    }
  ]
}
```

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```
    },
    "currentAddress": {
      "addressLine1": "1102 N 9TH ST TRLR 36",
      "city": "KATY",
      "state": "TX",
      "zipCode": "77494"
    }
  }
}
]
```

```
},
{
  "subscriberId": "ABCD23456789",
  "events": [
    {
      "eventType": "NEW MOVER",
      "eventDate": "2021-07-25",
      "processDate": "2021-07-26",
      "otherData": {
```

*The sample response continues on the next page.*

```
    "previousAddress": {
      "addressLine1": "24151 BELLA DOLCE LN APT 403",
      "city": "ALPINE",
      "state": "TX",
      "zipCode": "79830"
    },
    "currentAddress": {
      "addressLine1": "12409 S HILL CT",
      "city": "ALPINE",
      "state": "TX",
      "zipCode": "79830"
    }
  }
}
]
```



### Errors

Code	Text message	Description and how to fix it
401	Unauthorized	The client's request was not completed because it lacks valid authentication credentials for the requested resource.
404	Not Found	The requested resource is not available.



## Get life events for a single subscribed person

Retrieve life events for a single subscribed person in LEMA. You may search back 1-31 days to view events or view all life events for a subscribed person. Request returns an array of life events for the subscriber.

**GET**`https://api.fenrisd.com/services/lifeevents/v1/events/subscribed/{subscriberId}`

### Headers

Header	Value	Description
<b>Content-Type</b>	application/json	The body is in JSON format, using UTF-8 character encoding.
<b>Authorization</b>	Bearer {access_token}	Use the token from the <a href="#">Authentication</a> call
<b>Submission-Id</b>	<string>	Passthrough field: A client-specified identifier that ties back to client data or systems; If not supplied, use an auto-generated field.

### Path Parameter

Field	Value	Description
<b>subscriberId</b>	<string>	The client-supplied identifier of a person in the subscription list



## Query Parameter

Field	Required?	Value	Description
<b>numDays</b>	Optional	<integer>	<p>Returns the number of days to look back to capture new life events. When returning events for all subscribed persons:</p> <ul style="list-style-type: none"> <li>The minimum value is 1.</li> <li>The maximum value is 31.</li> <li>The default value is 14 days.</li> </ul> <p>When returning events for one subscribed person:</p> <ul style="list-style-type: none"> <li>Permissible values are greater than or equal to 0.</li> <li>For zero values, processing returns all available events for the person.</li> <li>The default value is 0.</li> </ul>

## Response

Field	Value	Description
<b>status</b>	<string>	Returns the status of the search: SUCCESS OR NO EVENTS FOUND.
<b>requestId</b>	<string>	Returns an Internally generated unique ID used for auditing and support
<b>submissionId</b>	<string>	Returns a client-supplied identifier that ties back to client data or systems: If not supplied, the API uses the <code>requestId</code> .
<b>events</b>	[< <a href="#">LifeEvent</a> >]	An array of subscribers with life events (will be empty if no life events are found); See <a href="#">Custom Classes</a> for a description of this value.



## Example Response

```
{
  "requestId": "fe017154-10ca-447c-84a4-d227af2e584f",
  "submissionId": "abcd-efgh-ijkl",
  "status": "SUCCESS",
  "events": [
    {
      "eventType": "NEW MOVER",
      "eventDate": "2021-07-25",
      "processDate": "2021-07-26",
      "otherData": {
        "previousAddress": {
          "addressLine1": "20907 S JEFFERSON PKWY",
          "city": "PLEASANT HILL",
          "state": "MO",
          "zipCode": "64080"
        },
        "currentAddress": {
          "addressLine1": "128 SENECA LN",
          "city": "GREENWOOD",
          "state": "MO",
          "zipCode": "64034"
        }
      }
    }
  ]
}
```

## Errors

Code	Text message	Description and how to fix it
401	Unauthorized	The client's request was not completed because it lacks valid authentication credentials for the requested resource.
404	Not Found	The requested resource is not available.





## Appendix A: Custom Classes

The tables below define the custom classes used in this API.

### Address

Field	Required?	Type	Description
<b>addressLine1</b>	<b>Required</b>	<string>	The standard street and the unit portion of an address
<b>addressLine2</b>	Optional	<string>	The address string that is applied to the address line for processing, if present
<b>city</b>	Optional	<string>	The city name
<b>state</b>	<b>Required</b>	<string>	The two-character USPS® state abbreviation
<b>zipCode</b>	Optional	<string>	The five-digit postal code

### LifeEvent

Field	Required?	Type	Description
<b>eventType</b>	<b>Required</b>	<string>	Type of event: <ul style="list-style-type: none"> <li>NEW BABY</li> <li>NEWLY ENGAGED</li> <li>NEW MOVER</li> <li>NEWLY MARRIED</li> <li>NEWLY SINGLE</li> <li>PREMOVER AT CONTRACT</li> <li>PREMOVER AT LIST</li> <li>PRENATAL</li> </ul>
<b>eventsDate</b>	<b>Required</b>	<string>	The date when the event occurred, in YYYY-MM or YYYY-MM-DD format
<b>processDate</b>	<b>Required</b>	<string>	The date when the event occurred, in YYYY-MM or YYYY-MM-DD format

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Field	Required?	Type	Description
<b>otherData</b>	Optional	< <a href="#">NewMoverInfo</a> >	Extra info about the event, today only: The NEW MOVER event creates this object only for a known previous address. See <a href="#">Custom Classes</a> for a description of this value.

### NewMoverInfo

Field	Required?	Type	Description
<b>previousAddress</b>	Required	< <a href="#">Address</a> >	The former address of the requested person: See <a href="#">Custom Classes</a> for a description of this value.
<b>currentAddress</b>	Required	< <a href="#">Address</a> >	The current address of the requested person: See <a href="#">Custom Classes</a> for a description of this value.

### Person

Field	Required?	Type	Description
<b>firstName</b>	Required	<string>	The Given name(s) of the primary insured individual
<b>middleName</b>	Optional	<string>	The middle name of the primary insured individual
<b>lastName</b>	Required	<string>	The family name or surname of the primary insured individual
<b>dateOfBirth</b>	Optional	<string>	The Individual's date of birth in format MM/DD/YYYY

### SubscriberLifeEvent

Field	Required?	Type	Description
<b>subscriberId</b>	Required	<string>	A client-specified identifier for this subscriber
<b>events</b>	Required	[< <a href="#">LifeEvent</a> >]	An array of life events for this subscriber: See <a href="#">Custom Classes</a> for a description of this value.



## Appendix B: Return values for edit/update subscribed person information

The tables in this section define the returned response values for this API endpoint.

### Status

Value	Description
ADDED ENTRY	The input record matched our reference data (see the <a href="#">Match Description</a> below). Processing results returned the subscriber ID and reference data key in the subscriber's table.
UPDATED	The input record matched our reference data (see the <a href="#">Match Description</a> below). Processing results returned the subscriber ID and reference data key in the subscriber's table.
NO UPDATE REQUIRED	The input record matched our reference data (see the <a href="#">Match Description</a> below). The subscriber ID and reference data key did not require an update.



## Match Description

Value	Description
Default match logic	The input record matched a unique individual in our reference data set. The reference record may differ from the input based on typographical errors in the name or address fields and have an equivalent first name.
Default match logic new mover	The input record matched a unique individual in our reference data set using a new mover record. Some of the returned information is based on information from the previous address.
First and last names switched	After switching the first and last names, the input record matched a unique individual in our reference data set. The reference record may differ from the input based on typographical errors in the name or address fields and have an equivalent first name.
First and last name switched to new mover	The input record matched a unique individual in our reference data set after switching the first and last name using a new mover record. Some of the returned information is based on information from the previous address.
Multiple matches found	Processing found multiple potential individual matches for the input record. Please verify the input information and resubmit. Adding a date of birth may be able to resolve the match. Note that this is an infrequent occurrence (less than 1 in every 10,000 submissions).
Not matched to reference	Processing did not find the input record in our reference data set
Artificial match	The input record matched an artificial record in our data set. We use these records for development and testing, so this match description should not occur in production systems. If one does occur, please notify us immediately. Note that the match logic for artificial matches is much tighter than for regular matching to avoid false positives.



## Authentication

Fenris Digital restricts access to its APIs and manages access tokens through an OAuth2 authorization server. The principal token manager is the Client Credentials workflow defined by the OAuth 2 specification. You will receive a Client-Id, and Client Secret used to obtain an access token from the Authorization Server.

**NOTE: Access tokens are good for 24 hours after you receive them before refreshing them. You must submit another call to obtain a new token after the previous one expires.**

**POST**

<https://auth-fenrisd.auth.us-east-1.amazoncognito.com/oauth2/token>

### Headers

Header	Value	Description
<b>Content-Type</b>	application/x-www-form-urlencoded	Type of payload contained in the body
<b>Authorization</b>	Basic {basic_string}	<p>The <code>basic_string</code> is the Base-64 encoding of the <code>client_id</code> and <code>client_secret</code> separated by a colon. This is the standard token passed for Basic authentication with <code>username</code> replaced by <code>client_id</code> and <code>password</code> replaced by <code>client_secret</code>.</p> <p>Many libraries will do this for you:</p> <ol style="list-style-type: none"> <li>1. Select basic authentication.</li> <li>2. Set the username to your <code>client_id</code>.</li> <li>3. Set the password to the <code>client_secret</code>.</li> </ol>

### Body

Field	Required?	Value	Description
<b>client_id</b>	<b>Required</b>	<string>	Obtain the <code>client_id</code> from Fenris.
<b>grant_type</b>	<b>Required</b>	<code>client_credentials</code>	Fixed string required for machine-to-machine authentication.



## Response

Field	Value	Description
<b>token_type</b>	<string>	Type of security token
<b>expires_in</b>	<integer>	Elapsed time, represented in seconds, until the token expires
<b>access_token</b>	<string>	Newly-generated auth-token: Use the value in this field as a Bearer token in future requests' Authorization header.
<b>scope</b>	<string>	Permission of generated token

## Example Response

```
{
  "token_type": "Bearer",
  "expires_in": 86400,
  "access_token": "AbCdEf123456",
  "scope": "api"
}
```

## Errors

Code	Text message	Description
401	Unauthorized	The request was not completed because it lacks valid authentication credentials for the requested resource.



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