fedict
@-novating government

WEB SERVICE AND OPERATION DESCRIPTION

MIK PUBLIC V1.0

Fedict - Federale Overheidsdienst ICT
Fedict - Service Public Fédéral ICT

.be

Contents

TABLE 1 DOCUMENT HISTORY

Version	When	Who	What
1.0	24/3/2011	Johan Philippe	Document setup
1.1	29/3/2011	Johan Philippe	Comment integration (context clarification)

Objective of this document

The aim of the service and operation description is to provide a detailed functional description.

The request and response messages, endpoints and authorization are described in the corresponding service message description document.

The complete functional package contains: Service Message Content, Service Error Codes, Service Test plans and service management documents.

Target group

This document is intended to be read by managers and analysts.

1 Introduction

This service ('MIK public') together with the 'MIK response' service provides the public access to MIK. MIK stands for 'Maritiem Informatie Kruispunt' which under the responsibility of FOD Mobility – Maritime Transport opens up access to ship location information. The information source for these locations (EMSA - European Maritime Safety Agency) is not free and MIK on the one hand consolidates the requests to EMSA and on the other hand also charges the end users for access to this information. MIK also consolidates the information from the two data sources that EMSA provides:

- LRIT: Long-Range Identification and Tracking
- SSN: SafeSeaNet

Information can be requested to MIK using a subscription model, whereby the consumer will at regular intervals receive the information on the ship(s) they are subscribed to. It is also possible to request ad hoc information. This can be a request for the latest information, or for a historical data set.

Requests to MIK to manage subscriptions and for ad hoc data are synchronous. The data resulting from these requests is always delivered asynchronously through the 'MIK response' service.

This document describes the MIK public service that thus allows consumers to manage their subscription by communicating with MIK or to request ad-hoc information:

- Subscribe to New Positions Request
- Stop Subscription to New Positions Request
- Ad hoc Aggregated LRIT-request
- Most Recent Aggregated LRIT-request
- Historical Aggregated LRIT-request
- Historical In Cache Aggregated LRIT-request

This document handles the web services for managing the subscriptions with MIK and ad hoc requests for information.

Functionality	operation	Wsdl service name
Start a subscription	SubscribeToNewPositionsRequest	FsbMikConsumerService
Stop a subscription	StopSubscriptonToNewPositionsRequest	FsbMikConsumerService
Ad hoc request of the LRIT position of a ship enriched with SSN data	AdHocAggregatedLritPositionRequest	FsbMikConsumerService
Request the most recent LRIT position (from the LRIT system) of a ship enriched with SSN data	MostRecentAggregatedLritPositionRequest	FsbMikConsumerService
Request the historical LRIT position data (from the LRIT system) of a ship enriched with SSN data	HistoricalAggregatedLritPositionsRequest	FsbMikConsumerService
Request the historical LRIT position data (from the MIK system) of a ship enriched with SSN data	HistoricalAggregatedLritPositionsInCacheRequest	FsbMikConsumerService

For a clear understanding of some notions please check the reference documents listed in the appendix.

2 Service description

The MIK public service allows consumers to manage their subscription by communicating with MIK or to request ad-hoc information.

All requests are technically synchronous between the consumer and MIK. But as a result of these requests, MIK will asynchronously send information back to the consumer using the MIK response service (except of course for the StopSubscriptonToNewPositionsRequest).

MIK will not validate the existence of a ship with the identification given in the operations below. The result for a non-existent ship will be messages that report no data is available (SignalNegativeResultResponse).

2.1 OPERATION SUBSCRIBETONEWPOSITIONSREQUEST

Using the SubscribeToNewPositionsRequest a consumer requests to regularly receive LRIT position data on a particular ship. The data will be sent back asynchronously using the MIK response service, based on the requested interval and the ship identification.

Apart from the ship identification the consumer must also specify the subscription period. This period must be in the future and can of course not end before it starts.

In the reply the consumer will receive a subscription ID that can be used to prematurely stop the subscription and to correlate the asynchronous data received to an active subscription.

2.2 OPERATION STOPSUBSCRIPTONTONEWPOSITIONSREQUEST

A consumer can prematurely stop a subscription to LRIT position data.

To do this, the consumer has to use this operation with the subscription ID they want to prematurely stop.

2.3 OPERATION ADHOCAGGREGATEDLRITPOSITIONREQUEST

With this operation a consumer can ask MIK for LRIT position data of a particular ship.

The request is synchronously forwarded to MIK which will then take the necessary action(s) to request the data from LRIT and provide the consumer with the requested information using the asynchronous MIK response service.

2.4 OPERATION MOSTRECENTAGGREGATEDLRITPOSITIONREQUEST

With this operation a consumer can ask the most recent LRIT position data of a particular ship.

The request is synchronously forwarded to MIK which will then take the necessary action(s) to request the most recent data from LRIT and provide the consumer with the requested information using the asynchronous MIK response service.

2.5 OPERATION HISTORICALAGGREGATEDLRITPOSITIONSREQUEST

With this operation a consumer can ask historical LRIT position data of a particular ship.

The request is synchronously forwarded to MIK which will then take the necessary action(s) to request the data from LRIT and provide the consumer with the requested information using the asynchronous MIK response service.

2.6 OPERATION HISTORICALAGGREGATEDLRITPOSITIONSINCACHEREQUEST

With this operation a consumer can ask cached historical LRIT position data of a particular ship.

The request is synchronously forwarded to MIK which will subsequently retrieve the historical data it has available and provide it to the consumer using the asynchronous MIK response service.

3 Detailed Capability Scenario's

All requests are technically synchronous between the consumer and MIK. But as a result of these requests, MIK will asynchronously send information back to the consumer using the MIK response service (except of course for the StopSubscriptonToNewPositionsRequest).

MIK will not validate the existence of a ship with the identification given in the operations below. The result for a non-existent ship will be messages that report no data is available.

3.1 OPERATION SUBSCRIBETONEWPOSITIONSREQUEST

Using the SubscribeToNewPositionsRequest a consumer requests to regularly receive LRIT position data on a particular ship. The data will be sent back asynchronously using the MIK response service, based on the requested interval and the ship identification.

3.1.1 STANDARD SCENARIO

The system date < start date < end date.

The service synchronously forwards the message to MIK. MIK responds with a subscription ID which is subsequently passed back to the requester.

3.1.2 ALTERNATIVE SCENARIO INVALID PERIOD

The period is not valid: system date >= start date or start date >= end date.

The service responds a Soap Fault.

3.2 OPERATION STOPSUBSCRIPTONTONEWPOSITIONSREQUEST

With this operation a consumer can prematurely stop a subscription to LRIT position data.

3.2.1 STANDARD SCENARIO

The service synchronously forwards the message to MIK and synchronously sends the answer back to the requester.

3.3 OPERATION ADHOCAGGREGATEDLRITPOSITIONREQUEST

With this operation a consumer can ask MIK for LRIT position data of a particular ship.

3.3.1 STANDARD SCENARIO

The service synchronously forwards the message to MIK and synchronously sends the answer back to the requester.

3.4 OPERATION MOSTRECENTAGGREGATEDLRITPOSITIONREQUEST

With this operation a consumer can ask the most recent LRIT position data of a particular ship.

3.4.1 STANDARD SCENARIO

The service synchronously forwards the message to MIK and synchronously sends the answer back to the requester.

3.5 OPERATION HISTORICALAGGREGATEDLRITPOSITIONSREQUEST

With this operation a consumer can ask historical LRIT position data of a particular ship.

3.5.1 STANDARD SCENARIO

The start date < end date < system date.

The service synchronously forwards the message to MIK. MIK confirms the request and the answer is passed back to the requester.

3.5.2 ALTERNATIVE SCENARIO INVALID PERIOD

The period is not valid: system date <= end date or start date >= end date.

The service responds a Soap Fault.

3.6 OPERATION HISTORICALAGGREGATEDLRITPOSITIONSINCACHEREQUEST

With this operation a consumer can ask cached historical LRIT position data of a particular ship.

3.6.1 STANDARD SCENARIO

The start date < end date < system date.

The service synchronously forwards the message to MIK. MIK confirms the request and the answer is passed back to the requester.

3.6.2 ALTERNATIVE SCENARIO INVALID PERIOD

The period is not valid: system date <= end date or start date >= end date.

The service responds a Soap Fault.

Appendix

REFERENCE DOCUMENTS

For more details the references provided by FOD Mobility have to be consulted.

Description	Dutch reference	French reference	English reference
Functioneel Ontwerp MIK knooppunt	Project_LRIT_MIK_Knooppunt_FSB_RFC_preparation.pdf		
FSB RFC preparation Project LRIT MIK			Project_LRIT_MIK_Knooppunt_FSB_RFC_preparation.pdf
EMSA information			http://www.emsa.europa.eu/

Remark: the references in the table above are the current available versions and may change