

# UC-403: Send message

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## Used documentation

Cookbook	Version	Location
eHealthBox v3 Publication WS	3.3	<a href="https://www.ehealth.fgov.be/ehealthplatform/nl/service-beveiligde-elektronische-brievenbus-ehealthbox">https://www.ehealth.fgov.be/ehealthplatform/nl/service-beveiligde-elektronische-brievenbus-ehealthbox</a>
ETEE known recipients	2.4	<a href="https://www.ehealth.fgov.be/ehealthplatform/nl/service-systeem-voor-end-to-end-vercijfering">https://www.ehealth.fgov.be/ehealthplatform/nl/service-systeem-voor-end-to-end-vercijfering</a>
eHealthBox Supported Qualities	1.2	<a href="https://www.ehealth.fgov.be/ehealthplatform/nl/service-beveiligde-elektronische-brievenbus-ehealthbox">https://www.ehealth.fgov.be/ehealthplatform/nl/service-beveiligde-elektronische-brievenbus-ehealthbox</a>

## General information

### SendMessage

The request that must be sent in order to publish the eHealthBox content for one or more recipients will be discussed here. You can send a message of the type “Document” or “News item”. A document contains a PublicationId that you define and that cannot be used twice. A News item, on the other hand, can be updated and this is done by sending a new news item with the same PublicationId. You cannot update a “Document” type.

### Request

- [Example request](#)
- [UML request](#)

### Response

The response contains a success status code if no major error could be found in the request. Still, remember that the system is asynchronous: a successful response does not guarantee that the message will be correctly published at the end of the process. In chapter 8, you will find the possible business errors returned by the method.

- [Example response](#)
- [UML response](#)

- [Status codes](#)

## End-to-End Encryption for known recipients

The message to send to the WS may be encrypted.

To encrypt the message, you should retrieve the public key of all recipients plus yours from the eHealth Token Key (ETK) depot. Then, you should encrypt the message using the obtained public keys via the eHealth platform Crypto Libraries.

## Encrypted message convention

If an encrypted message is to be sent, ALL "Encryptable" fields MUST contain (all) encrypted content.

In other words, first encrypt the content of each of those fields separately and set IsEncrypted to True.

If IsEncrypted is set to True, and non-encrypted content is being transported, unexpected errors can occur.

Conversely, if IsEncrypted is set to False, and encrypted content is being transported, unexpected errors can also occur.

You cannot choose to encrypt some "Encryptable" fields solely.

## Lifetime of a message

- When the expiration date of a message is reached, it has been read, AND it has already been placed in the recycle bin, the message is definitely removed from the application.
- When a message is older than 1 year (counted from publication date), it is definitely removed from the application, even if it has not been read.

## Treatment of NIHL-11 numbers

When sending a message via the Publication WS, the identification of the sender is by default, retrieved from the STS Token. The recipient will see the identifier of the sender when retrieving the message via the Consultation WS. If the sender is a healthcare professional, his SSIN can be retrieved from the STS token and used as identifier for the sender. If the sender is a hospital or some other healthcare organization, the identifier in the STS token will be of the type NIHL. Finally, if the sender is an organization, the identifier type will be a CBE. Exception is made if BoxId (optional element) is filled out. In that case, the person connected to the WS is sending the message "in name of the person or organization" specified in the element BoxId. Thus, if a healthcare professional (a person) wants to send a message using his NIHL (INAMI) number instead of his SSIN number, he has to submit the request and fill out his NIHL number in the BoxId.

For example, the sender is connected as a doctor with an STS token containing his INSS number as attribute:

```
Id = 12345678910
Type = INSS
Quality = DOCTOR
```

But he does not want to display his SSIN number to the recipient, since he prefers to display his NIHL number; he then uses the BoxId element in the request, and fills it out as follows:

```
<BoxId>
<Id>104025888</Id>
<Type>NIHL</Type>
<Quality>DOCTOR</Quality>
</BoxId>
```

The sender will then be stored in the application with the data found in BoxId (after access validation).

Note: a NIHL number consists out of 11 numbers (with the 3 qualification numbers) or 8 numbers (without the 3 qualification numbers).

When authenticated as an organization, it is not possible to use the BoxId.

## Out-of-Office

This system enables the sender to know whether one of the recipients is absent and send his message to a substitute or substitutes, so the sender's message can be treated. For example, physicians on holiday may want to ensure continuity of healthcare services for their patients. To do this, they can automatically transfer their messages to another colleague responsible during their holidays thanks to the "Out-of-Office" system. If a recipient is absent, a special `SendMessageResponse` with the substitutes is returned.

When sending a message, the system checks if some of the recipients of the message have an active OoO. If so, a specific OoO Business error is returned (in `SendMessageResponse`). This response contains the period during which the original recipient is absent, the substitutes of the recipient (if specified) and their qualities.

It is possible that the person absent did not introduce a replacement. In this case, the same OoO Business error will be returned but without a substitute.

**`SendMessageRequest` must then be called again and substitutes should be added next to the original recipient. `OoOProcessed under DestinationContext` is set to true for the original recipient. For this recipient, there will be no more OoO verification during the second request. If the message is to be sent encrypted, the message must be encrypted again for the added substitute(s).**

If the substitute himself is absent, a new OoO Business error will be returned, and so on.

The OoO activates automatically when the time is reached.

OoO system is inactive for a mass mailing: no notification will be sent.

## Mass mailings

You can send a message to a specific person or to multiple persons by specifying one `DestinationContext` per person. You can also send a message to a list of persons sharing the same "Quality". Please refer to Annex 1 – Publish a message to a list of professionals. In order to be able to send a message to all persons sharing the same quality (all nurses, or all doctors), prior authorization from the eHealth platform ([info@ehealth.fgov.be](mailto:info@ehealth.fgov.be)) is required. The eHealth platform will investigate your request, and then allow you to publish this type of message.

## Send Message Method

You can send a message of the type "Document" or "News item". A document contains a `PublicationId` that you define and that cannot be used twice. A News item, on the other hand, can be updated and this is done by sending a new news item with the same `PublicationId`. You cannot update a "Document" type.

## Possible file types for attachments

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All file types are possible. There are no limitations from the eHealthBox.

## Content type

Content type NEWS isn't being used and will be removed in v4 of the eHealthBox. Therefore it doesn't need to be tested.

Source: Wolf Wauters, eHealth (23/04/2019).

## Basic flow

Flow	Specifications
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Unknown macro: 'drawio'

ID	UC403-BF
Name	Send an encrypted message to one healthcare professional
Description	/
Actor(s)	Two healthcare professionals
Requirements	/
Trigger	A healthcare professional wants to send an encrypted message to another healthcare professional.
Precondition(s)	<ul style="list-style-type: none"><li>■ The user is logged in (see <a href="#">Use case: login</a>).</li><li>■ The user wants to send an encrypted message to another healthcare professional.</li></ul>
Flow	<ol style="list-style-type: none"><li>1. see <a href="#">Use case: login</a>.</li><li>2. The message to send is for example "This message is used to test encryption".</li><li>3. Send the message to (Example_Test_Actor).</li></ol>
Postcondition(s)	<ul style="list-style-type: none"><li>■ The message has been sent to another healthcare professional.</li><li>■ The other healthcare professional has received the message correctly.</li></ul>
Test Data	<ul style="list-style-type: none"><li>■ <a href="#">Example SendMessageRequest</a></li><li>■ <a href="#">Example SendMessageResponse</a></li></ul>
Endpoint(s)	<ul style="list-style-type: none"><li>■ ehBoxPublication (<a href="https://services-acpt.ehealth.fgov.be/ehBoxPublication/v3">https://services-acpt.ehealth.fgov.be/ehBoxPublication/v3</a>) SendMessage</li></ul>

## Alternative flow 1

Flow	Specifications
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Unknown macro: 'drawio'

ID	UC403-AF01
Name	Send a not encrypted message to one healthcare professional
Description	/
Actor(s)	Two healthcare professionals
Requirements	/
Trigger	A healthcare professional wants to send a not encrypted message to another healthcare professional.
Precondition(s)	<ul style="list-style-type: none"><li>• The user is logged in (see <a href="#">Use case: login</a>).</li><li>• The user wants to send a not encrypted message to another healthcare professional.</li></ul>
Flow	<ol style="list-style-type: none"><li>1. see <a href="#">Use case: login</a>.</li><li>2. The message to send is for example "This message is used to test no encryption".</li><li>3. Send the message to (Example_Test_Actor).</li></ol>
Postcondition(s)	<ul style="list-style-type: none"><li>• The message has been sent to another healthcare professional.</li><li>• The other healthcare professional has received the message correctly.</li></ul>
Test Data	<ul style="list-style-type: none"><li>• <a href="#">Example SendMessageRequest</a></li><li>• <a href="#">Example SendMessageResponse</a></li></ul>
Endpoint(s)	<ul style="list-style-type: none"><li>• ehBoxPublication (<a href="https://services-acpt.ehealth.fgov.be/ehBoxPublication/v3">https://services-acpt.ehealth.fgov.be/ehBoxPublication/v3</a>) SendMessage</li></ul>

## Alternative flow 2

Flow	Specifications
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Unknown macro: 'drawio'

ID	UC403-AF02
Name	Send an encrypted message to two (or more) healthcare professional
Description	/
Actor(s)	Three healthcare professionals
Requirements	/
Trigger	A healthcare professional wants to send an encrypted message to multiple healthcare professionals.
Precondition(s)	<ul style="list-style-type: none"><li>• The user is logged in (see <a href="#">Use case: login</a>).</li><li>• The user wants to send a not encrypted message to another healthcare professional.</li></ul>
Flow	<ol style="list-style-type: none"><li>1. see <a href="#">Use case: login</a>.</li><li>2. The message to send is for example "This message is used to test multiple recipients".</li><li>3. Send the message to (Example_Test_Actor1) and (Example_Test_Actor2).</li></ol>
Postcondition(s)	<ul style="list-style-type: none"><li>• The message has been sent to another healthcare professional.</li><li>• The other healthcare professionals has received the message correctly.</li></ul>
Test Data	<ul style="list-style-type: none"><li>• <a href="#">Example SendMessageRequest</a></li><li>• <a href="#">Example SendMessageResponse</a></li></ul>
Endpoint(s)	<ul style="list-style-type: none"><li>• ehBoxPublication (<a href="https://services-acpt.ehealth.fgov.be/ehBoxPublication/v3">https://services-acpt.ehealth.fgov.be/ehBoxPublication/v3</a>) SendMessage</li></ul>

## Alternative flow 3

Flow	Specifications
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Unknown macro: 'drawio'

ID	UC403-AF03
Name	Send an encrypted message to a healthcare professional who is out-of-office
Description	/
Actor(s)	Three healthcare professionals: <ul style="list-style-type: none"><li>▪ One to send the message.</li><li>▪ One who is out-of-office.</li><li>▪ One who is a substitute for the out-of-office.</li></ul>
Requirements	/
Trigger	A healthcare professional wants to send an encrypted message to another healthcare professional.
Precondition(s)	<ul style="list-style-type: none"><li>• The user is logged in (see <a href="#">Use case: login</a>).</li><li>• The user wants to send a not encrypted message to another healthcare professional.</li></ul>
Flow	<ol style="list-style-type: none"><li>1. see <a href="#">Use case: login</a>.</li><li>2. The message to send is for example "This message is used to test Out-of-Office functionalities".</li><li>3. Send the message to (Example_Test_Actor).</li><li>4. The message couldn't be sent because the recipient is out-of-office. You will receive a notification that the recipient is out-of-office with the substitute(s).</li><li>5. Send the message to one of the substitutes <b>and</b> the original recipient.</li></ol>
Postcondition(s)	<ul style="list-style-type: none"><li>• The message has been sent to another healthcare professional.</li><li>• The other healthcare professionals have received the message correctly.</li></ul>
Test Data	<ul style="list-style-type: none"><li>• <a href="#">Example SendMessageRequest</a></li><li>• <a href="#">Example SendMessageResponse</a></li></ul>
Endpoint(s)	<ul style="list-style-type: none"><li>• ehBoxPublication (<a href="https://services-acpt.ehealth.fgov.be/ehBoxPublication/v3">https://services-acpt.ehealth.fgov.be/ehBoxPublication/v3</a>) SendMessage</li></ul>

## Alternative flow 4

Flow	Specifications
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Unknown macro: 'drawio'

ID	UC403-AF04
Name	Send an encrypted message to a healthcare professional and notify the recipient
Description	/
Actor(s)	Two healthcare professionals
Requirements	/
Trigger	A healthcare professional wants to send an encrypted message to another healthcare professional.
Precondition(s)	<ul style="list-style-type: none"><li>• The user is logged in (see <a href="#">Use case: login</a>).</li><li>• The user wants to send a not encrypted message to another healthcare professional.</li></ul>
Flow	<ol style="list-style-type: none"><li>1. see <a href="#">Use case: login</a>.</li><li>2. The message to send is for example "This message is used to test the notification functionality".</li><li>3. Specify the email of the recipient to notify them of this message.</li><li>4. Send the message to (Example_Test_Actor).</li></ol>
Postcondition(s)	<ul style="list-style-type: none"><li>• The message has been sent to another healthcare professional.</li><li>• The other healthcare professional has received the message correctly.</li><li>• The other healthcare professional has also received a notification on his/her email.</li></ul>
Test Data	<ul style="list-style-type: none"><li>• <a href="#">Example SendMessageRequest</a></li><li>• <a href="#">Example SendMessageResponse</a></li></ul>
Endpoint(s)	<ul style="list-style-type: none"><li>• ehBoxPublication (<a href="https://services-acpt.ehealth.fgov.be/ehBoxPublication/v3">https://services-acpt.ehealth.fgov.be/ehBoxPublication/v3</a>) SendMessage</li></ul>

## Alternative flow 5

Flow	Specifications
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Unknown macro: 'drawio'

ID	UC403-AF05
Name	Send an encrypted message with an attachment to a healthcare professional
Description	/
Actor(s)	Two healthcare professionals
Requirements	<ul style="list-style-type: none"><li>▪ A file of any type to attach to the message (&lt;10MB).</li></ul>
Trigger	A healthcare professional wants to send an encrypted message with an attachment to another healthcare professional.
Precondition(s)	<ul style="list-style-type: none"><li>• The user is logged in (see <a href="#">Use case: login</a>).</li><li>• The user wants to send a not encrypted message to another healthcare professional.</li></ul>
Flow	<ol style="list-style-type: none"><li>1. see <a href="#">Use case: login</a>.</li><li>2. The message to send is for example "This message is used to test the attachment".</li><li>3. The attachment can be of any file type. The size of the attachment has to be less than 10MB.</li><li>4. Send the message to (Example_Test_Actor).</li></ol>
Postcondition(s)	<ul style="list-style-type: none"><li>• The message has been sent to another healthcare professional.</li><li>• The other healthcare professional has received the message and attachment correctly.</li></ul>
Test Data	<ul style="list-style-type: none"><li>• <a href="#">Example SendMessageRequest</a></li><li>• <a href="#">Example SendMessageResponse</a></li></ul>
Endpoint(s)	<ul style="list-style-type: none"><li>• ehBoxPublication (<a href="https://services-acpt.ehealth.fgov.be/ehBoxPublication/v3">https://services-acpt.ehealth.fgov.be/ehBoxPublication/v3</a>) SendMessage</li></ul>

NOTE: All different combinations for the [SendMessageRequest](#).