SERVICE LEVEL AGREEMENT

BSM: This SLA is covered by BSM's for "Infrastructure", "Support" and "Projects"

This SLA is a complement to the Master Service Agreement V4.0 as described in art 2.2 (MSA)

Mission: eHBox Hosting

Reference: **SLA eHBox Hosting**

Version: 1.2

Date: April 2017

Printed on: Friday 21 April 2017

Between :

eHealth

(Hereafter referred to as "Constituent")

and:

Smals

(Hereafter referred to as "Service Provider")

Table of content

1. Management of this document

1.1. Version Management

Table below gives an overview of the different versions which were discussed and/or approved with the Constituent. Approved versions always have a version reference X.0. Intermediate versions have a version reference X.Y

Version	Date	Author	Description of the changes
1.0	July 15th, 2013	P. Hollande	Version approved
1.1	May 26th, 2015	P. Hollande	Update for KPI setting for Performance – eHBox Webservices big message
1.2	April 2017	P. Heller	Update KPI

1.2. Related Documents

Name	Date	Author	Remark
Project Charter			
Master Service Agreement V 4.0 - 2011	December 12th, 2014	M. Stuckens P. Hollande	This SLA is a complement to the Master Service Agreement

1.3. Validity

The validity of this SLA is defined in conformance with the Master Service Agreement:

Without a cancellation notice from the Constituent, the mission will be automatically renewed. This mission will also be confirmed by respective BSM.

1.4. Precedence

The information in this document version takes precedence over the data regarding the same subjects given in former versions and in the MSA.

2. Description of the Basic Service eHBox

Purpose

The eHealth Box (eH-Box) is a secured mailbox, which means that users can have access only to the messages and/or documents that they are authorized to.

Features

The secured electronic mailbox service is mainly composed of the following functionalities:

- publication of messages from one constituent to one or several receivers;
- consultation of mails stored within the eHealthBox;
- management of the eHealthBox;
- management of notification to an external e-mail address (eHealth update info functionality).

The eH-Box Basic Service is composed of a Web application and several Web services.

eHBox users can publish, consult or manage their mailboxes either through the webapplication interface hosted on the portal or through direct call to webservices.

a) Webapplication interfaces and functionalities

In the framework of the webapplication, eHealthBox users will use their local browser and connect themselves to the myeHealth component (covered by the portal SLA). In order to use their mailbox they will need to identify themselves and select with which health actor profile they want to work with the eHealthBox. Therefore they have to identify themselves through their eID (Covered by the UAM SLA).

Citizens can only consult and manage their mail box. Health actor profile and health institution representative profile, can also publish mails.

The eHealth box webapplication interface includes a Java application running on the local pc of the user. It includes the component necessary for the encryption and decryption of addressed messages (Covered partially by the ETEE SLA)[1]. This webapplication makes direct call to the eHbox webservice interface to cover the eHealthbox functionalities.

b) Webservice interfaces and functionalities

Some medical softwares integrate direct calls to the eHbox webservices. In this framework, the identification and authentification steps are covered by the STS service and the identification through the eHealth certificate.

In addition, those softwares should integrate the call to eHealth end-to-end encryption basic service before any publication of medical messages and after their consultation (Covered by the ETEE SLA).

---

[1] Please, note that eHealth box users need to request and to have a valid eHealth certificate and encryption key in order to receive encrypted messages even for the webapplication interface.

Typical use

a) <u>Main use case</u>

1. A user can send a message that may be beforehand encrypted, and may contain some attachments.

2. Each message sent is in a first step set in a temporary spool in order to be stored directly in the receiver eHealthbox. At the moment, the mail is in the receiver eHealthbox, the sender may receive a notification[2].

3. If the inbox of the receiver is less than its authorised capacity, the receiver can from that moment see the mail otherwise, he has to clean his inbox.

4. From that moment, the receiver can consult the list of messages (with a limit of 100 messages per call). In addition, once a day, the receiver may obtain a notification if he had subscribed to the eHealth update info service.

5. The receiver can select and consult a specific message. The sender can obtain a notification related to this act.

6. The receiver can then download the attachment.

b) <u>Other use cases</u>

1. The eHealth box users can move mails from their inbox to their trashcan.

2. eHealthbox users can navigate from their inbox, to their trashcan and to their sent item.

3. eHealthbox users can navigate from one user profile to the other or the all of them

4. Mails in the trashcan are automatically deleted after that their validity period has expired.

5. The subscription to the eHealth update info functionality is mandatory if you want to receive a notification when you have a new message in your eHealthBox.

---

[2] This notification doesn't mean that it is already visible for the receiver.

2.1. Scope of the SLA

2.1.1. General
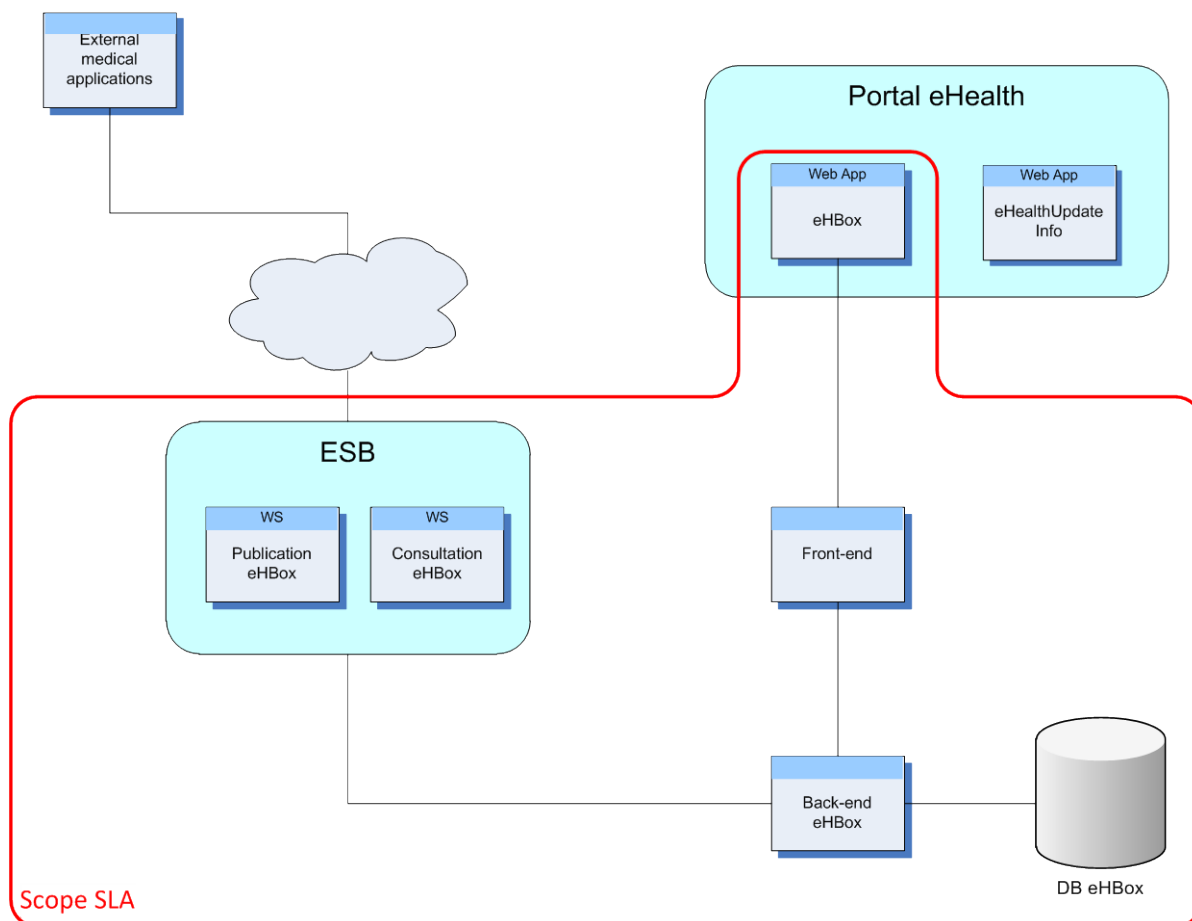
2.1.2. Services delivered by Service Provider

- The eHBox Service is Managed by the Service Provider.

- For these components, following Services are provided by the Service Provider to ensure that the Basic Service Portal can be delivered with the requested quality:

  - Housing   See attachment in MSA
  - Infrastructure Management   See attachment in MSA
  - Application Management   See attachment in MSA

- Integration support for new End-users. See MSA for description.

- Production support for existing end-users and software houses.

2.1.3. Services delivered by the Constituent and service provider

- As the eHBox Service has been developed both by the Constituent and the Service Provider, code modifications in the scope of
  - o Incident Management;
  - o Problem Management;
  - o Evolution and or enhancement of the Service

will be covered by a joint (Constituent.and Service Provider) intervention.

2.1.4. Services covered by another SLA

- Contact Center Service (see MSA)
- Creation and Management of Client certificates (for authentication)
- Portal eHealth
- End to End Encryption
- I.AM eHealth

2.1.5. Out of scope

- External application from the end-user
- External internet connection from the end-user

2.2. Service Parameters

The Service Parameters and Objectives described below are valid only for the Production environment.

2.2.1. Service Level Criticality

The Service Level Criticality (as described in the MSA) for the Basic Service eHBox is GOLD.

2.2.2. Service Window

The default service windows defined in the MSA (Chapter 5.1.1 Service, Support and Maintenance window) is applicable for this SLA.

Service Window								
		Day of the week (closing days of Service Provider = Sunday)						
		Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Day period	00:00 – 07:00							
	07:00 – 08:00							
	08:00 – 16:30							
	16:30 – 19:00							
	19:00 – 21:00							
	21:00 – 24:00							

Legend	
	Timeslots where the Service must be available according to the SLA and where corrective actions will be taken to resolve detected Incidents.
	Timeslots where the Service will be available provided there are no blocking Incidents. If incidents do appear, no corrective action will be taken.
	Timeslots where unavailability can occur.

2.2.3. Support Window

The default support windows defined in the MSA (Chapter 5.1.1 Service, Support and Maintenance window) is applicable for this SLA.

Support Window								
		Day of the week (Closing days of Service Provider = Sunday)						
		Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Day period	00:00 – 07:00							
	07:00 – 08:00							
	08:00 – 16:30							
	16:30 – 19:00							
	19:00 – 20:00							
	20:00 – 21:00							
	20:00 – 24:00							
Legend								
	Timeslots for which the eHealth Call Center is available for the End-Users with a second line support for Infrastructure (HW, OS, Middleware and DB)							
	Timeslots for which the eHealth Call Center is available for the End-Users with a second line support, including Application Support.							
	Timeslots for which the eHealth Call Center is unavailable for the End-Users. The End-User will have the possibility to record a voice message that will be treated on the next Workday. Email is available 24/24 7/7 to send question.							

2.2.4. Maintenance Window

During the switch over between P1 and P2, a downtime of maximum 30 minutes is authorized. This downtime will not be taken into account when calculating the Availability of the different Services.

Interventions authorized on the Active environment[3] are Corrective actions intended to enhance the availability or stability of the Service. Unavailability caused by these interventions will be recorded as downtime.

These interventions are handled by Release management processes, like other interventions.

---

[3] Active environment being the environment (P1 or P2) effectively running the Production. The other one is than the Next Release environment.

2.3. Service Objectives - Overview

Service	KPI	SL ID	Condition	Measure based on	Limit	Service Window	Objective Committed	Objective Target
eHBox	Availability of the eHBox Web App		Test script passes	Fictious request		Mo – Su 0:00 – 24:00	99,5%	99,9%
	Availability of the eHBox Web Service Consultation		Test script passes	Fictious request		Mo – Su 0:00 – 24:00	99,5%	99,9%
	Availability of the eHBox Web Service Publication		Test script passes	Fictious request		Mo – Su 0:00 – 24:00	99,5%	99,9%
	Performance – eHBox Webservices Consultation <100kb		Response time ≤ 2 sec	Real transactions		Mo – Su 0:00 – 24:00	90,0%	95,0%
	Performance – eHBox Webservices Publication <100kb		Response time ≤ 2 sec	Real transactions		Mo – Su 0:00 – 24:00	90,0%	95,0%
	Performance – eHBox WebServices Consultation - getFullMessage big messages'ssize		Response time ≤ 4 sec	Fictious request of 500kb		Mo – Su 0:00 – 24:00	90,0%	95,0%
	Performance – eHBox Webservices Publication - sendMessage big message's size		Response time ≤ 4 sec	Fictious request of 500kb		Mo – Su 0:00 – 24:00	90,0%	95,0%

Note: following KPIs are not implemented and not necessary as long as the usage of them is low.

- Availability e-mail info update – registration
- Availability e-mail info update – send mail to inform
- Performance eHBox WebApp

2.4. Service Objectives - Details

2.4.1. Availability Web App

<table>
<tr><th colspan="4">Objectives</th></tr>
<tr>
<td>Definition</td>
<td colspan="3">

The eHBox Web App service is considered to be available when the following test is correctly executed:

Log-in with e-ID and/or certificate
Select role
Check status of Web App
Log-out

Planned interventions executed within the Maintenance Window are not recorded as unavailable time.

</td>
</tr>
<tr>
<td>Measuring method</td>
<td colspan="3">

The availability of the different functionalities is measured by executing the test scripts every 10 minutes. When the script is executed with as result a Status "OK", the test "passed".
When the script is executed with an other result, the test "failed"

</td>
</tr>
<tr>
<td>Calculation</td>
<td colspan="3">

$$Availability = \frac{\sum Passed\ Tests\ x\ 100}{\sum Total\ Tests}\%$$

Total Tests = Total number of tests launched within corrected timeframe
Passed Tests = Total number of tests that resulted in a status "OK" within the same timeframe
Corrections are applicable on tests that are not taken into account because they were caused :

by a Validated Authentic Source or partner application out of scope of this SLA
by a failing monitoring tool

</td>
</tr>
<tr>
<td>Reporting and evaluation period</td>
<td colspan="3">

The availability is calculated and reported monthly. Corrective actions are initiated when appropriate.
The formal evaluation however is done on a yearly basis.

</td>
</tr>
<tr>
<td rowspan="3">Service Level Objectives</td>
<td rowspan="2">Functionality</td>
<td rowspan="2">Service Window</td>
<td colspan="2">Service Level Objective</td>
</tr>
<tr>
<td>Committed</td>
<td>Target</td>
</tr>
<tr>
<td>eHBox Web App</td>
<td>Mon – Sun 0:00 – 24:00</td>
<td>99,5%</td>
<td>99,9%</td>
</tr>
</table>

2.4.2. Availability Web Service Consultation

<table>
<tr><th colspan="2">Objectives</th></tr>
<tr>
<td>Definition</td>
<td>

- The eHBox Web service Consultation is considered to be available when the following test is correctly executed:
  - Get STS Token
  - Check inboxes with the different active versions
- Planned interventions executed within the Maintenance Window are not recorded as unavailable time.

</td>
</tr>
<tr>
<td>Measuring method</td>
<td>

- The availability of the different functionalities is measured by executing the test scripts every 10 minutes. When the script is executed with as result a Status "OK", the test "passed".
- When the script is executed with another result, the test "failed"

</td>
</tr>
<tr>
<td>Calculation</td>
<td>

$$Availability = \frac{\sum Passed\ Tests\ x\ 100}{\sum Total\ Tests}\%$$

  - Total Tests = Total number of tests launched within corrected timeframe
  - Passed Tests = Total number of tests that resulted in a status "OK" within the same timeframe
  - Corrections are applicable on tests that are not taken into account because they were caused :
    - by a Validated Authentic Source or partner application out of scope of this SLA
    - by a failing monitoring tool

</td>
</tr>
<tr>
<td>Reporting and evaluation period</td>
<td>

- The availability is calculated and reported monthly. Corrective actions are initiated when appropriate.
- The formal evaluation however is done on a yearly basis.

</td>
</tr>
<tr>
<td>Service Level Objectives</td>
<td>

Functionality	Service Window	Service Level Objective	
		Committed	Target
eHBox Web Service Consultation	Mon – Sun 0:00 – 24:00	99,5%	99,9%

</td>
</tr>
</table>

2.4.3. Availability Web Service Publication

Objectives	

Definition	• The eHBox Web service Publication is considered to be available when the following test is correctly executed:
	    ○ Get STS Token
	    ○ Send message to inboxes with the different active versions
	    ○ Wait 5 sec
	    ○ Clean-up mails
	• Planned interventions executed within the Maintenance Window are not recorded as unavailable time.

Measuring method	• The availability of the different functionalities is measured by executing the test scripts every 10 minutes. When the script is executed with as result a Status "OK", the test "passed". • When the script is executed with an other result, the test "failed"

Calculation	$$Availability = \frac{\sum Passed\ Tests\ x\ 100}{\sum Total\ Tests}\%$$
	
	○ Total Tests = Total number of tests launched within corrected timeframe
	○ Passed Tests = Total number of tests that resulted in a status "OK" within the same timeframe
	○ Corrections are applicable on tests that are not taken into account because they were caused :
	    ▪ by a Validated Authentic Source or partner application out of scope of this SLA
	    ▪ by a failing monitoring tool

Reporting and evaluation period	• The availability is calculated and reported monthly. Corrective actions are initiated when appropriate. • The formal evaluation however is done on a yearly basis.

Service Level Objectives	Functionality	Service Window	Service Level Objective	
			Committed	**Target**
	eHBox Web Service Publication	Mon – Sun 0:00 – 24:00	99,5%	99,9%

2.4.4. Performance – eHBox Webservices Consultation and Publication <100kb

Objectives	

Definition	• The performance of the eHBox Web Services refers to its response time. Response time meaning the time needed to execute a request.
	• The Performance is reported
	    o By Technical module (Web service Consultation / Publication)
	    o By version of the module
	    o By type of request (Get list, Get message, Send message ….)
	    o As function of the size of the message
	• Attention: The response time does not include:
	    o The time needed to deliver the information over the Internet
	    o The time needed to process the information at the End Users premises.

Measuring method	• This response time is measured on the Reverse Proxies. .Both start time (request received) and stop time (answer sent to the End User) are measured and stored in a database. • Measuring is done on real transactions, and only on those having a "stop time" within the measuring period.
Calculation	• All response times are calculated: Stop time – Start time for every request. • The percentage that meets the target is calculated based on following formula: $$Performance = \frac{\sum Tests\ meeting\ the\ target\ x\ 100}{\sum Total\ Tests}\%$$
Reporting and evaluation period	• The performance is calculated and reported monthly. Corrective actions are initiated when appropriate. • The formal evaluation however is done on a yearly basis.

Service Level Objectives	Functionality	Target	Service Level Objective	
			Committed	Target
	Performance eHBox WS Consultation <100kb	< 2 sec	90,0%	95,0%
	Performance eHBox WS Publication <100kb	< 2 sec	90,0%	95,0%

2.4.5. Performance – eHBox Webservices Consultation / Publication, big messages

Objectives	
Definition	• The performance of the eHBox Web Services refers to its response time. Response time meaning the time needed to execute a request of a message. Big size means a message ≥ 500kb, from that size on, the throughput is constant. • Attention: The response time does not include: o The time needed to deliver the information over the Internet

Measuring method	• The action is executed every 15 minutes by a test scenario with a message of 500kb. Both start time and stop time are measured and stored in a database.
	    o xh00: Send message file with first active version
	    o xh15: Get message file with first active version and delete message
	    o xh30: Send message file with second active version
	    o xh45: Get message file with second active version and delete message

Calculation	• All response times are calculated: Stop time – Start time for every request. • The percentage that meets the target is calculated based on following formula: $$Performance = \frac{\sum Tests\ meeting\ the\ target\ x\ 100}{\sum Total\ Tests}\%$$
Reporting and evaluation period	• The performance is calculated and reported monthly. Corrective interventions are initiated when appropriate. • The formal evaluation however is done on a yearly basis.

Service Level Objectives				
	Functionality	**Target**	**Service Level Objective**	
			Committed	**Target**
	eHBox Consultation - getFullMessage	< 4 sec	90,0%.	95,0%
	eHBox Publication - sendMessage	< 4 sec	90,0%.	95,0%

2.4.6. Capacity

- The Service Provider will monitor and report the use of the communication line to the Internet.
- This will consist of
    - Producing a monthly report about the utilization of the communication line and evaluate the used capacity against the maximum capacity.
    - Generating a "warning" message at 80% of maximum capacity of the database.
    - Generating an incident and informing the Constituent at 90% of maximum capacity of the database.
- The Constituent will provide on a monthly basis all available information about the expected increase in internet traffic. This must help the Service Provider in anticipating capacity expansion.
- Every quarter a Quarterly Capacity Plan will be elaborated and discussed with the Constituent

2.5. Standard changes

- To be completed when needed

2.6. Reporting

Following topics are covered in the monthly report:

- Usage of the Basic Service
- Availability results
- Performance results
- Overview of the Incidents
- Overview of the implemented Changes

Following topics are covered in the daily report

- Availability results

3. Communication of Incidents with High impact

3.1. Group 1   Management Smals

Name	Organisation #	GSM #	e-mail address
F. Robben			
J.-L. Vanneste			
S. Akkermans			

3.2. Group 2   Management Constituent and Account Manager

Name	Organisation #	GSM #	e-mail address
F. Robben	eHealth		
M. Stuckens	eHealth		
P. Heller	eHealth		

3.3. Group 3   Helpdesk end-users

Name	Phone #	GSM #	e-mail address

3.4. Group 4   Inspectors

- Not Applicable

3.5. Group 5   End users

- Not Applicable