MASTER SERVICE AGREEMENT

Mission: eHealth platform core services

Reference: MSA-eHealth platform

Version: 1.03

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1. Management of this document

1.1. Version Management

Table below gives an overview of the different versions discussed with and/or approved by the Partner. 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	May 15th, 2012	eHealth Service Management	
1.1	April 30th,,2013	eHealth Service Management	Support information updates
1.2	August 2015	eHealth Service Management	Update
1.3	February 8th, 2019	eHealth Service Management	Update

1.2. Document distribution

Every approved version of this document will be distributed to the following people by e-mail.

Name	Function	Organization
eHealth Service Management	Service Management	eHealth platform

1.3. Related documents

Title	Date	Author
SLA Certificate		
SLA CoBRHA		
SLA Timestamping		
SLA Consult RN		
SLA User Access Management		
SLA Coding		
SLA E2E encryption		
SLA Portal eHealth		
SLA eHBox		
SLA ID Support		
SLA MetaHub		
SLA SOA		
SLA therapeutic Links		
SLA Consent		
SLA Loggings		

2. Objectives and Scope

2.1. Objective of the Master Service Agreement (MSA)

The objective of this document is to:

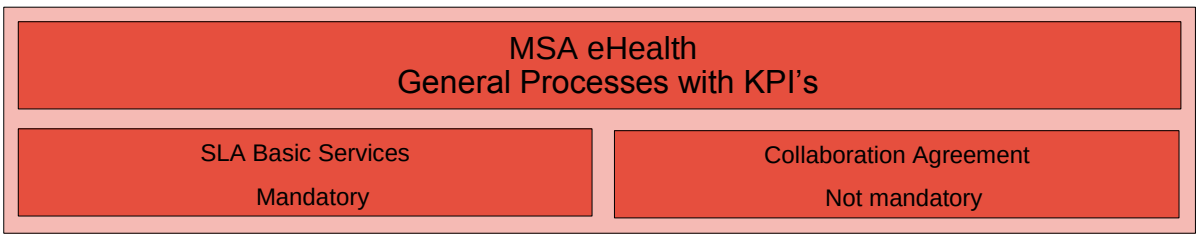
- Define a framework in which the Service Level Agreements (SLA) can be developed for all the Basic Services available on the different environments of the eHealth platform, taking into account their changing role.
- Formalize the general directives in order to obtain quality service descriptions and service enhancement. Directives are:
  - SLA will provide a mutual understanding of Service level definition, expectations and their measurement methods.
  - Every KPI will have 2 SLO's defined:
    - The minimum (committed) service level guaranteed by the eHealth platform
    - The target service level = The expected service level
- Centralize all information that is common to all services such as service descriptions, generic process descriptions, etc.
- This document, as well as the SLA's for the different Basic Services, describes the commitments, responsibilities and objectives of the parties involved.
- The process of setting objectives, evaluating the delivered quality against these objectives and developing Service Improvement Plans will enhance the delivered quality.

2.2. Positioning of the Master Service Agreement and the relation with its attachments

The MSA contains commitments, procedures, Service descriptions and other specifications that are generic for all the activities performed in the scope of the eHealth platform.

The different SLA's contain commitments, procedures and Service Level Objectives specific to the concerned Basic Service.

The different Collaboration Agreements describe and clarify the overall governance between the eHealth and the major external Partner offering value added services and solution on the eHealth platform.

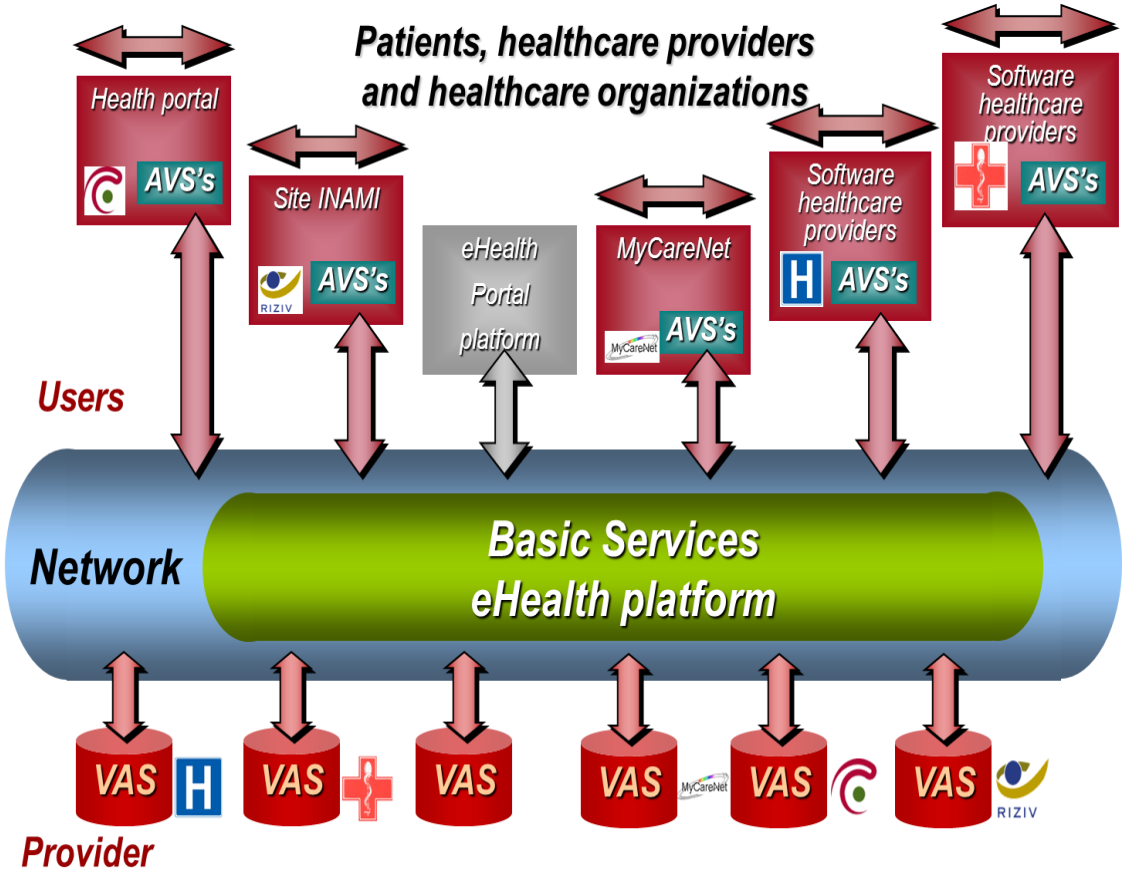


2.3. Scope

This document contains or refers to:

- General Terms & Conditions
- Collaboration agreements
- Governance

This Master Service Agreement is applicable to the Basic Services available on the eHealth platform. The services to be delivered are not the same for all Basic Services and detail can be found in the different specific SLA's. This picture gives a high level overview of the eHealth architecture. Both AVS (Added Value Services) and VAS (Validated Authentic Source) are out of scope of this MSA. (More details further this document.)



Basic Services eHealth platform:

- UAM (MAZDA, Remaph, PEP, IAM, FAS2)
- Timestamping
- Coding
- eHealth Box
- Consult RN
- Loggings
- End to end encryption
- Metahub (Reference Directory and Hub Implementation)
- Consent
- Therapeutic Links
- Orchestration (SOA)

- Validated Authentic Source (CoBRHA) of healthcare providers
- ID Support
- Unique Portal (UPPAD)

2.3.1. Service management

This Master Service Agreement describes the ITIL processes used to deliver services within the scope of the eHealth platform. For the different processes, Key Performance Indicators (KPI) will be defined, measured and where needed, Service Improvement Plans will be put in place if applicable.

The eHealth platform is responsible for collecting the raw data necessary to calculate the Key Performance Indicators (KPI) defined in this document or in attached SLA's. eHealth will check the completeness and the validity of these data and calculate the results for the concerned period.

Processes that are covered in this Master Service Agreement are:

- Incident Management
- Change and Release Management
- Service Level Management

2.4. Out of Scope

2.4.1. Validated Authentic Sources

For the Validated Authentic Sources or "VAS" outside the responsibility of the eHealth platform, no formal commitment will be recorded unless the owner of the VAS accepts to provide an SLA on the service he delivers or a copy of the VAS existing in the managed infrastructure. A VAS has no specific SLO.

2.4.2. Added Value Services

For the Added Value Services or "AVS" outside the responsibility of the eHealth platform, no formal commitment will be recorded unless the owner of the AVS accepts to provide an SLA on the Service he delivers. An AVS has no specific SLO.

2.5. Risks, conditions and dependencies

2.5.1. Hosting of Services

Services not developed by the eHealth platform, should be submitted for testing on acceptance and deployment on the eHealth production environment prior to open the production environment leveraging eHealth Basic Services

2.6. Responsibilities of the Partner

- The Partner should report every deficiency the eHealth platform as soon as possible, using the appropriate procedure.
- The Partner should make sure that the users have been informed about the relevant procedures and that they respect them.
- The Partner should communicate to the eHealth platform the contact details of AVS first line support.
- The Partner should deliver full support of his services, as well as a capacity plan.

2.7. Implementation of the SLA's

The definition of the SLO for the new eHealth Basic Services (or implementation of a major release) as well as for the ITIL processes will be done on a pragmatic base. During a start-up phase (6 months as of the use in the production environment), the results will be measured.

At the end of the start-up phase, the SLO will be fixed. This will be done by taking into account the achievements during the start-up phase, the statistical information about the installed equipment and the degree of redundancy built into the infrastructure. The identified risks are also to be taken into consideration.

2.8. Start and evaluation of the MSA

- This MSA takes effect on February 1st, 2019 and remains active until a new version is communicated. The MSA describes the quality and operating procedures of the services/deliverables.
- The evaluation of the delivered services is done on a regular basis.
- Once a year, the year results will be evaluated as well as the content of the MSA and related SLA's. The MSA and related SLA's can be modified as described in Par "2.92.9 Modifications to the MSA and related documents". Related documents (e.g. SLA) can have start dates different from the MSA start date.

2.9. Modifications to the MSA and related documents

- Every request by the Partner to change the contents of this MSA and the related SLA will officially be sent to the eHealth Service Management.
- The Changes, if approved by the eHealth Service Management, will become active as soon as the MSA and SLA have been published.

3. Relationship management

To be able to manage the Service Delivery in an efficient and consistent way, the Partner and the eHealth platform agree to put in place a "Relationship Management Process". It describes the relationship roles.

3.1. Contact

Following roles are defined for the management of the services delivered in the scope of this MSA and related SLA. The specific contacts in following table will only be updated once a year.

Level	Role	eHealth platform
1	SPOC	**Production Support : Contact Center eHealth** 02 788 51 55 ***support@ehealth.fgov.be*** **Acceptance/Integration Support for Partners, Software Houses only :** ***integration-support@ehealth.fgov.be***
2	Service Management	**Service Management eHealth** ***eHealth_Service_Management@eHealth.fgov.be***
3	Program Office	***info@ehealth.fgov.be***

3.2. Escalation procedure

3.2.1. Escalation approach

From time to time, issues will arise which cannot be resolved at the various levels of management within the Partner and eHealth teams. These issues may arise at a particular site or level. They may involve obligations of Party, performance, staff, etc.

It is the intent of both parties to resolve issues in a constructive way which reflects the concerns and collaboration interests of each party. Both parties' primary objective and intent is to have issues resolved by the appropriate levels of authority without the need for escalation.

Escalation procedures are described in the specific Collaboration Agreements. In the context of this MSA, the first step is to inform the eHealth Service Management.

4. Service Management

- To be able to deliver all services with a professional quality, the eHealth platform has put in place Service Management processes based on ITIL good practices.
- These Service Management processes will guarantee that the different services are delivered in a consisting way and that the service objectives will be met.
- Key Performance Indicators (KPI) necessary to measure the quality of these processes will be described in the following paragraphs.

4.1. Service level standards

4.1.1. Service, Support and Maintenance Window

4.1.1.1. Service and Support Window

Support for eHealth Basic Services in production environment - reference 3.1 Contact information.

The default Service and Support Window is:

Support Window Production environment								
		Day of the week (Closing days of the eHealth platform)						
		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 – 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 or send a web request that will be treated on the next working day.

Support for eHealth Services in Acceptance/Integration environments - reference 3.1 Contact information

The default Support Window is:

Support Window Acceptance and Test environments								
		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 – 9:00							
	09:00 – 16:30							
	16:30 – 19:00							
	19:00 – 21:00							
	21:00 – 24:00							

Service Window and Support Window (default or other) will be specified in each separate SLA.

Maintenance Window will also be specified in each SLA.

Changes on the production environment can only be performed during the Maintenance Window, unless specified otherwise.

4.2. Maintenance window for Production environment

At each Major Release, a downtime of maximum 30 minutes is authorized. This downtime will not be taken into account when calculating the availability of the different services.

4.2.1. Service Level Criticality

Service Level Criticality is defined per service and per logical environment. It is defined in the specific SLA's. However, following level is considered as standard:

Production environment	GOLD

4.3. Incident management

4.3.1. Definition

The Incident management process points to the activities needed to restore a normal service operation as quickly as possible and to minimize the impact on business operations, thus ensuring that the best possible levels of service quality and availability are maintained.

4.3.2. Implementation of Incident management

This paragraph describes the way the eHealth platform has implemented Incident Management and contains the main information needed by the Partner to be able to communicate and interact efficiently with the eHealth platform and vice versa.

4.3.2.1. Priorities

- On Incident assignation, the priority is calculated based on the service level criticality and the impact of the situation.
- The service level criticality is fixed at the beginning of the resolution and is linked to the installed infrastructure.
  - A production environment is defined as **GOLD**. Failover does not need any manual intervention.
  - An environment with all required stand-by systems is defined as **SILVER**. A manual intervention is needed to switch over.
  - A stand-alone environment without stand-by devices is defined as **BRONZE**
- By default, the Business Importance Level on eHealth service is **GOLD**. Specific Service Level for each basic service are specified in the respective SLA's.
- In case of conflicting data (in MSA and SLA) about the Business Importance Level of a Service, the SLA data prevail.
- The impact is defined based upon the following table. When the situation changes over time, Impact and Priority will be adapted accordingly.

Impact	Situation
High	The incident affects all end-users
Medium	The incident affects a group of end-users
Low	The incident affects one or a limited number of end-users
None	No degradation of the Service

- The priority is calculated as follows:

Business Importance Level	Impact			
	HIGH	MEDIUM	LOW	NONE
GOLD	Priority 1 (P01)	Priority 2 (P02)	Priority 8 (P08)	Priority 40 (P40)
SILVER	Priority 2 (P02)	Priority 4 (P04)	Priority 16 (P16)	Priority 40 (P40)
BRONZE	Priority 4 (P04)	Priority 8 (P08)	Priority 40 (P40)	Priority 40 (P40)

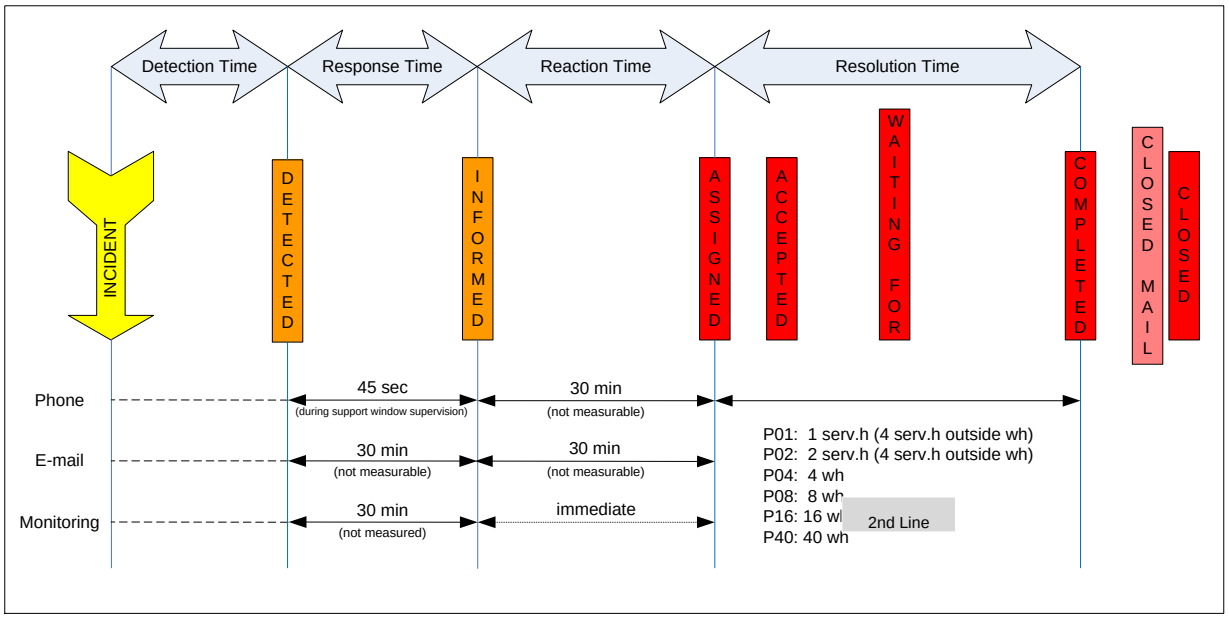
Please note that a Priority 1 or 2 incident shall be raised in case of lack of compliancy to the KPI within the calculation window.

4.3.2.2. Detection, Response, Reaction and Resolution targets

- See par 4.3.4. for Incident Management KPI's
- When the resolution process requires an intervention of the Partner or 3rd parties outside the responsibility sphere of the eHealth platform, the time needed to perform these interventions, will not be counted as resolution time of eHealth (Status = "Waiting For").
- Interventions performed outside Working Hours can take longer as those within Working Hours. (See par 4.3.4. KPI for Incident management).

4.3.3. Graphical overview of Incident lifecycle

- Timeline within Contact Center



4.3.4. KPI for Incident management

Measuring method

- The KPI's mentioned hereunder and in the following paragraphs are, unless specified otherwise, related to the processing of technical incidents and are therefore seen in the perspective of the supervision part of the service desk.
- The definition is most of the time seen as a timeframe delimited by two statuses in the Service Management tool.
- The measuring method and calculation is based on a ratio of the "Defined Performance" and the maximum possible Performance.

4.3.4.1. *Incident detection phase by the eHealth platform*

Availability Monitoring of the "Infrastructure Monitoring"		
Goal of the KPI	• Evaluate the availability of the Infrastructure Monitoring tool	
Definition	• The Infrastructure Monitoring tool is considered to be available when the log file is updated with the results of the different measurements.	
Measuring method	• The availability of the Infrastructure Monitoring tool is measured with the Monitoring tool "Application Monitoring". The update timestamp of the log file is checked every 2 minutes. • When the log file was effectively updated, the Infrastructure Monitoring tool is considered to be available during the past timeslot of 2 minutes.	
Calculation window	• Monthly	
Objective	**Committed**	**Target**
	Min 99,5%	Min 99,5%

Availability Monitoring of the "Application Monitoring"		
Goal of the KPI	• Evaluate the availability of the Monitoring tool "Application monitoring"	
Definition	• "Application monitoring" is considered to be available when the log file is updated with the results of the different measurements.	
Measuring method	• The availability of the Monitoring tool "Application monitoring" is measured with the Infrastructure Monitoring tool. A PING is performed to all servers used by Application monitoring.	
Calculation window	• Monthly	
Objective	**Committed**	**Target**
	Min 99,5%	Min 99,5%

4.4. Release Management

The eHealth Next Release Methodology focuses on the following objectives:

- Reliability, Availability and Serviceability (RAS) which is achieved by:
  - rolling out only one Major Release each quarter
  - move to 99.9% availability
  - guarantee backward compatibility of two years
- Improving the testing capabilities by making an acceptance environment available throughout the life cycle of a Major Release. This will enable both partners and the eHealth platform to proactively identify issues and take actions for mitigation. This will also enable our partner to take action in communicating capacity requirements for specific solution(s) to eHealth Service Management.

- Customer focus through effective communication. The partner will always receive communications of planned interventions and Major Release deployments on both the acceptance and production environment. At the time of Next Major Release deployments, the partner is always invited to perform tests on their web applications and web services. The partner is strongly requested to participate in these tests.

It is important to note that this methodology will have no impact on the standard integration of existing eHealth basic services, nor on the Partner's release process.

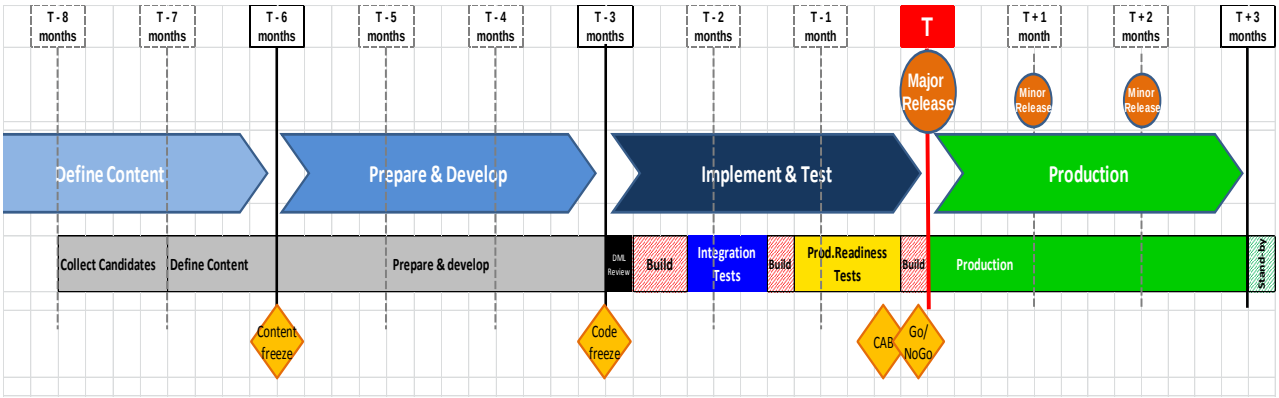
4.4.1. Category of Releases

The different release categories are listed hereafter for information purposes.

- ***Major release (twice a year)***
  - Contains all non-standard changes, application and infrastructure deployments which have been approved as part of the Next Release Calendar
- ***Minor release (2 per Major release)***
  - Contains all changes that meet specific business needs and therefore cannot wait until the following Major Release
  - Full eHealth Next Release process will be applied
- ***Emergency Release (at any time)***
  - Changes that cannot wait until next Major or Minor Release due to a bug that has a high production and/or business impact
  - Full eHealth Next Release process will be followed although some process steps will be simplified to meet the urgency for deployment

4.4.2. Generic Release Timeline

For each Major Release, following Process is run through:



The following picture displays the quarterly production release as part of eHealth Next Release Methodology

4.5. Service Level Management

4.5.1. Service Review

If a collaboration agreement with a partner has been accomplished, service review meetings will be held in coordination with that partner.

4.6. Overview of KPI

Process	KPI	Parameter	SLO	Committed Service Level	Target Service Level
Incident Management	Monitoring availability (Infrastructure monitoring tool)	NVT		99,5%	99,50%
	Monitoring availability (Application Monitoring tool)	NVT		99,5%	99,50%
	Incident Response time (Contact center)				
		Phone	30 sec	80%	90%
	Incident Response time (Supervision)				
		Phone	45 sec	80%	90%
	Incident Reaction time	**Contact center**	30 min within support hours	95%	95%
	Incident Resolution time (Supervision)			80%	90%
	% Reopened Incidents (Limited to Supervision)	NA		Max 10%	Max 5%
	Changes executed before “Requested date” Emergency Changes	NA NA		Min 80% Max 5%	Min 90% Max 3%

5. Definitions

5.1. General definitions

- **Availability of an environment or an application**

Availability is usually calculated as a percentage of time the IT Service, the environment or the application, is able to perform according to its agreed function. This calculation is based on the Agreed Service Window and Downtime.

- **Downtime**

Time during which an IT Service is not available.

- **End-user**

A person, an institution, an external IT Service or an IT application who uses the IT Service.

- **Customer**

A person, an institution, an external IT Service or an IT application who has integrated eHealth IT services in their specific IT Services or applications. Customers are distinct from End-user, as some customers do not use the IT Service directly.

- **Service**

A Service is defined, within the context of Service management, as a logical grouping of functionalities that is made available through the combination and specific configuration of hard- and software CI's.

- **Service Window**

Agreed time period during which a particular IT Service must be available. For example, "Monday-Friday 08:00 to 17:00 except closing days of the Service Desk Center". Service Window is defined in the Service Level Agreement.

- **Service hours**

All hours within the Service Window

- **Support Window**

An agreed time period during which support is available to the Users. Typically this is the period when the Service Desk is available.

- **Maintenance Windows for Planned Interventions**

An agreed time period during which Changes or Releases may be implemented with minimal impact on Services. Change Windows is defined in the Service Level Agreement.

- **Mission**

The set of services to be provided by the eHealth platform, following a demand from the Partner

- **Detection time**

Time from the moment the incident occurs and the moment the incident is identified by the user or a monitoring service. (Still not communicated to the Service desk or Supervision). This period of time precedes the response time.

- **Response time**

Time between a user or a monitoring service tries to communicate an identified incident or an event to the service desk and the moment the service desk respond to the event. (e.g. number of ring bell, time before a mail is being treated, time before an alert is being treated). This period of time precedes the Reaction time.

- **Reaction time**

The time between the moment that the Service Desk is informed of an event (or the moment which an incident is detected via the monitoring) and the moment that a ticket is created, including its assignment to a group for resolution. This period of time precedes the resolution time.

- **Resolution time**

The time from the initial assignment of ticket till the ticket is considered completed. In other word that an answer has been communicated for a request for information or a solution has been implemented.

- **System Software**

Basic software as MS Windows, Linux, Oracle, etc.

- **Application Software**

Software developed in order to meet specific eHealth Basic Services requirements

- **Service Desk**

Point of contact for all the Service Requests. The Service Desk consists of the Contact center and Supervision.

- **Contact Center**

Single point of contact for end-users and customers

- **Service Request (SR)**

Request for the resolution of an unplanned interruption to an eHealth basic service or a reduction in the Quality or the Service.

- **Service Level Agreement**

An Agreement between an IT Service Provider and a Partner. The SLA describes the IT Service, documents Service Level Objectives, and specifies the responsibilities of the IT Service Provider and the Partner.

- **KPI (Key Performance Indicator)**

A metric that is used to help manage a Process, Service or activity.

- **Service Level Objective (SLO)**

A commitment that is documented in a Service Level Agreement. Service Level Objectives are based on Service Level Requirements, and are needed to ensure that the IT Service quality is fit for purpose. Service Level Objectives are the target of the KPIs.

- **Release**

A group of Changes that are tested, packaged and deployed into the IT Infrastructure at the same time.

- **Partner**

Healthcare organization, software package provider and healthcare stakeholders are identified as eHealth Partners.

- **Process**

A structured set of activities designed to accomplish a specific Objective.

- **VAS**

Validated authentic source

- **AVS**

Added value service

- **Closing days of the Service Desk Center**

1 January, Easter Monday, 1 May, Ascension day, White Monday, 21 July, 15 August, 1 November, 2 November,11 November, 25 December, 26 December.

- **Working hours**

All eHealth's working days between 8:00 and 16:30

- **Working days**

All weekdays except closing days of the eHealth platform.

5.2. Abbreviations

KPI	Key Performance Indicator
P_I, P_{II}, P_{III}, P_{IV}	The different priority level
SLA	Service Level Agreement
SLO	Service Level Objective
SPOC	Single point of contact
SR	Service Request
MSA	Master Service Agreement
VAS	Validated Authentic Source
AVS	Added Value Services
CI	Configuration item

6. Signatures

Name	Function	Signature