
Appendix

Support and maintenance with SLA levels Tender area 1: openEHR-based Software

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1. INTRODUCTION

This Appendix specifies the scope and requirements for the services to be provided by the Supplier for operation, management, development, and support. Furthermore, the Appendix regulates the Parties' respective rights and obligations within the scope of first, second and third line Support and the service levels that apply to the Supplier's third line Support. If the Supplier offers the Solution as subcontracted software, the Supplier shall ensure that the conditions for the Support and maintenance commitment are understood and fulfilled by the Subcontractor.

2. DEFINITIONS

Defined terms used in this Appendix shall have the same meaning as in call-off, unless the context clearly indicate otherwise. Terms not defined in the call off, are used in accordance with the terminology set out in the ITIL v. 3 glossary. In addition, the following definitions are used in this appendix:

"First line support" refers to the Customer's internal superusers that the users will turn to in the first instance.

"Second line support" refers to Karolinska University Hospital's system management/IT support.

"Third line support" means the Supplier's operation-, support and maintenance organization that receives support tickets/cases from the Customer's System Management organization.

"Response time" refers to the period of time from when the Supplier has received an incident report (manually or from a monitoring system) from the Customer, until the Incident, Error or Problem has been resolved; only counted during business hours, according to Chapter 5.3.1 and Chapter 5.3.2.

"Service Level" refers to the requirements for response times and resolve times for the Supplier's 3:rd line support that shall apply to resolving Incidents, Errors and Problems relating to the Solution.

3. GENERAL CONDITIONS AND ALLOCATION OF RESPONSIBILITIES BETWEEN PARTIES REGARDING THE SUPPLIER'S SUPPORT AND MAINTENANCE COMMITMENT

- 3.1 From the time the Support and Maintenance agreement is effective, Karolinska, in the case of Packaged Software Delivery with on-premise installation at Karolinska, is responsible for server operation, Data Center and network access to SLLnet and is responsible for First and Second Line Support. The Supplier shall be responsible for Third Line Support.
- 3.2 If the Solution is delivered as a 'Software as a Service'-solution, the Supplier is fully responsible for server operation, Data Center and network access to SLLnet and the Customer's responsibility below is reduced accordingly.
- 3.3 Within the scope of the First and Second Line Support, Karolinska shall be responsible for initial troubleshooting and case reception, incident management and support related to

reported incidents from users and solving of Incidents. The Solution shall be covered by the submitted Documentation and training provided by the Supplier.

3.4 To achieve the most efficient service organization possible, the Karolinska's Customer's IT personnel are entitled to carry out simple troubleshooting and maintenance services on the Solution provided that

- such personnel have undergone relevant training organized by the Supplier; and
- complies with all the regulations set out in the submitted documentation.

3.5 Within the scope of Third Line Support, the Supplier shall be responsible for solving all Errors, Problems and Incidents reported by the Customer's Second Line Support. The detailed actions to be performed by the Supplier under Third Line Support are set out in section 4 below. The Supplier's support and maintenances service are subject to the Service Levels set out in section 5.3 below. The Supplier is responsible for Third Line Support regardless of the mode of operation.

The supplier is responsible for Application Management and Application Operation regardless of the mode of operation. Application management includes problem management, error management, change management, release management, configuration management and life cycle management.

Life cycle management included maintenance and development of the solution, management of performance issues, e.g. that the solution can be scaled up/out in a manageable way, support for the deployment of new versions and releases and quality assurance.

3.6 The Supplier shall perform the following:

- (a) Provide updated Documentation (such as a list of know errors) for the Solution, so that the Customer's First Line Support, if applicable, can resolve commonly occurring Incidents by correcting Errors or implementing workarounds.
- (b) Provide Support to which Karolinska's Second Line Support can turn during the opening hours specified in this Appendix. Provide clear information on how to contact the Supplier to report Incidents and problems and promptly return such reports with a case number;
- (c) Provide continuous feedback on the status of open cases, both via messages and, where appropriate, via a customer portal;
- (d) Provide advice to the Customer's Second Line Support staff indicating the estimated time required to resolve Incidents. This time shall be consistent with the Service Levels in clause 5.1 below;
- (e) Provide remote support and continuously report back to the Customer the Errors, Problems and Incidents that the Supplier has solved within the scope of Third Line Support in the format agreed between the Parties.

4. THE SUPPLIER'S SPECIFIC RESPONSIBILITIES WITHIN THE SCOPE OF THE SUPPORT AND MAINTENANCE COMMITMENT

- 4.1** The Supplier shall ensure that the Solution is kept in a safe and functional condition during the term of the agreement and always fulfils the Agreed Specification.
- 4.2** During the Support and Maintenance Commitment, system users will also be connected successively in accordance with the dimensioning and capacity specified in the Agreement and its appendices.
- 4.3** The supplier shall perform the following within Application Management:
- a) Provide and support all software versions, changes, upgrades and updates, and new versions and releases of the Solution that are the result of the Supplier's general product development, general IT technology development (including, inter alia, new database releases/versions and technology shifts at the operating system level), or development required as a result of changes in regulatory requirements or law;
 - b) Provide any changes resulting from the connection of new system users;
 - c) Upon request from the Customer's Second Line Support, provide remote diagnostics and support to isolate Errors or Incidents and perform remote troubleshooting;
 - d) For notified Errors, Incidents and Problems that cannot be resolved remotely, provide technical support to restore the software included in the Solution to normal working order;
 - e) Provide a contact person for upgrading the System within 4 weeks of a new version being available from the Supplier. If necessary on site in the Customer's organisation.
 - f) Karolinska is entitiled to decline life cycle management, such as an upgrade of the Solution if it is likely that it can lead to problems in the Solution for Karolinska.
 - g) The Supplier shall make Hotfixes available in cases of critical incidents/problems is present in the Solution. A hotfix is a rapid software update aimed at urgently addressing a specific issue or bug in an application. Hotfixes are designed for quick deployment to resolve critical problems without the need for a comprehensive software update.
- 4.4** The Supplier is responsible for solving Errors, Incidents and Problems that is not due to disturbances in Karolinska's environment for which Karolinska is responsible. The Supplier shall:
- (a) Provide bug fixes, including workarounds, for the Solution and its software/applications;

- (b) Register incidents/error notifications from the Customer's Second Line Support and report action plan for correction/error correction;
- (c) Ensure that the correction of errors is carried out.
- (d) Test the corrections.
- (e) Document the impact of new releases and bug fixes.
- (f) Performing root cause analysis for repeated Problems and Incidents caused by incidents/errors in the System.
- (g) Update support documentation when needed.
- (h) When requested, provide emergency support to:
 - Prevent abnormal production interruptions.
 - Correct Errors, if possible, or correct invalid configuration data temporarily before the Error is permanently corrected and available e.g., through official release.
 - Provide support to establish workarounds if needed before the error is permanently corrected and available.

- 4.5** The Supplier shall perform Support and Maintenance in accordance with Good Industry Practice by trained/certified and competent personnel. Furthermore, all solving of errors and handling of Problems shall be carried out as quickly as possible, taking into account the nature of the Error or Problem and its impact on the Customer's business.
- 4.6** In the case of an on-premise solution at Karolinska: Support and maintenance shall as far as possible be carried out by the Supplier via a remote connection. The Supplier is entitled to connect a remote connection provided by the Customer for remote diagnostics provided that the security and confidentiality requirements can be met.
- 4.7** In the case of 'Software as a Service'-solution, the Supplier is responsible for solving this in the way the Supplier finds most appropriate.
- 4.8** Supplier is responsible for performing all actions under the Support and Maintenance Agreement in accordance with applicable law and the regulatory requirements applicable to the Solution.
- 4.9** The Supplier's support and maintenance commitment also applies in relation to a subcontractor engaged by the Customer who provides operational services related to the Solution, if the Customer decides to outsource various functions relating to its IT environment.
- 4.10** The Supplier's or Supplier's subcontractor's personnel who may come across encrypted Personal data in the Solution shall be geographically located within the EU/EEA and not subject to the jurisdiction of any other country outside the EU/EEA

5. SERVICE LEVELS FOR THE SUPPLIERS SUPPORT

5.1 General

5.1.1 The Service Levels that apply to the Supplier's support and maintenance services are shown in Table 1 and Table 2 (on-premise solution) and Table 3 and Table 4 (SaaS) below. If a certain Service Level is not met, the Customer is entitled to a deduction from the Support and Maintenance Fee according to the calculation in section 6.1 below.

5.1.2 The service levels are expressed in absolute times. Karolinska wants to make it clear that physical attendance within the response time is not necessary; instead, receiving a fault report and initiating troubleshooting via remote connection is acceptable.

5.2 Prioritization of errors and incidents

5.2.1 It is of utmost importance to Karolinska that the delivered Solution works and is available without interruption. The Supplier shall therefore, during the agreed times specified in Table 1 and 2 in Chapter 5.3.1 and Table 3 and 4 in Chapter 5.3.2, ensure that there are no unnatural interruptions, Errors or Incidents in the Solution that can have a negative impact on the care activities and that Errors, Problems and Incidents are responded to and rectified within the specified times.

5.2.2 Errors, Incidents or Problems, which cause the Solution to be unavailable to users and which are not attributable to the Customer's environment or network access, will be prioritized, depending on their severity, as follows:

Priority 1 - Critical	Serious and critical Incidents and Errors that cause downtime or serious disruption to the functionality of the Solution that makes it largely impossible to operate normally. All, or a significant portion of, connected system users are affected.
Priority 2 - High	Serious Incidents and Errors that cause additional work or make it more difficult to operate normally. The incident affects a specific business area or a small number of system users. Priority 2 also refers to incidents that create an increased risk of Priority 1 incidents occurring.
Priority 3 - Medium	Incidents that affect a small number of Users while the Customer's operations can continue as usual. Priority 3 also refers to Incidents that create an increased risk of Priority 2 Incidents occurring.
Priority 4 - Low	Minor Incidents or Incidents that have no impact on performance, functionality, or availability, and/or Incidents that only require the activation of troubleshooting by agreement.

- 5.2.3 Karolinska determines the priority of Incidents reported to the Supplier in accordance with what is stated above and depending on the impact of the Incident/Error on healthcare operations. Karolinska also has the right to request that the priority of all Incidents be changed to match the above list.
- 5.2.4 The Supplier is responsible for the availability of the Solution to the extent that the availability is not due to such operation or system responsibility managed by the Customer, the Customer's subcontractors or third parties, for which the Customer is fully responsible. However, the Supplier is responsible for providing error analysis and shall contribute to error correction or other unavailability of the Solution regardless of the underlying cause.
- 5.2.5 The Supplier shall solve Errors, Problems and Incidents in accordance with the Service Levels specified in section 5.3, unless such Errors, Problems or Incidents are obviously attributable to the Customer's operating environment. In the event of solving Errors, Problems or Incidents, the Supplier shall "log" all reported events and performed fault rectification services and, after fault rectification, submit to the Customer a "clear report" describing the Supplier's services.

5.3 Service levels for the Supplier's troubleshooting within the scope of the Third Line Service Desk:

- 5.3.1 Service levels for Supplier's application operation and application support at Third Line Support for **On-premise solution**

For Errors and Incidents reported by the Customer to the Supplier, the following reaction and response times apply. The Customer has the option of placing a supplementary order for changed or extended support opening hours during and after commissioning of the Solution.

Priority	Opening hours	Reaction time (start troubleshooting)	Response time - > counted during opening hours
Priority 1	Every day 7/24/365	Within 60 minutes	All incidents resolved within 10 hours
Priority 2	Weekdays 08:00 – 17:00	Within 4 hours	All incidents resolved within 16 hours
Priority 3	Weekdays 08:00 – 17:00	Within 8 hours	All incidents resolved within 24 hours
Priority 4	Weekdays 08:00 – 17.00	Within 8 hours	By agreement

Table 1, Service levels for Supplier's application operation and application support at Third Line Support for On-premise solution. – **Gold Level**

Priority	Opening hours	Reaction time (start troubleshooting)	Response time - > counted during opening hours
Priority 2	Weekdays 08:00 – 17:00	Within 4 hours	All incidents resolved within 16 hours
Priority 3	Weekdays 08:00 – 17:00	Within 8 hours	All incidents resolved within 24 hours
Priority 4	Weekdays 08:00 – 17:00	Within 8 hours	By agreement

Table 2. Service levels for Supplier's application operation and application support at Third Line Support for On-premise solution. – **Bronze Level**

5.3.2 Service levels for Supplier's application operation and application support at Third Line Support for **Software as a Service-solution**

For Errors and Incidents reported by the Customer to the Supplier, the following response and action times apply. The Customer has the option of placing a supplementary order for changed or extended support opening hours during and after commissioning of the Solution.

Priority	Opening hours	Reaction time (start troubleshooting)	Response time - > counted during opening hours
Priority 1	Every day 7/24/365	Within 60 minutes	All incidents resolved within 10 hours
Priority 2	Weekdays 08:00 – 17:00	Within 4 hours	All incidents resolved within 16 hours
Priority 3	Weekdays 08:00 – 17:00	Within 8 hours	All incidents resolved within 24 hours
Priority 4	Weekdays 08:00 – 17:00	Within 8 hours	By agreement

Table 3. Service levels for Supplier's application operation and application support at Third Line Support for 'Software as a Service-solution. – **Gold Level.**

Priority	Opening hours	Reaction time (start troubleshooting)	Response time - > counted during opening hours
Priority 2	Weekdays 08:00 – 17:00	Within 4 hours	All incidents resolved within 16 hours
Priority 3	Weekdays 08:00 – 17:00	Within 8 hours	All incidents resolved within 24 hours

Priority	Opening hours	Reaction time (start troubleshooting)	Response time - > counted during opening hours
Priority 4	Weekdays 08:00 – 17:00	Within 8 hours	By agreement

Table 4. Service levels for Supplier's application operation and application support at Third Line Support for 'Software as a Service'-solution – **Bronze Level.**

- 5.3.3 The time to solve (i.e. the time during which the Solution is not available due to Priority 1 - 3 Incidents) is calculated from the time when the fault report has been received by the Supplier to the time when the reported Incident has been closed and Karolinska has been informed that the problem has been resolved. This time also includes any time for restarting the Solution, if such restart is recommended by the Supplier or required to resolve the Error or Incident. If such Incident for which the Supplier is responsible recurs within twenty-four (24) hours, the Error resolution time shall be calculated from the first time the fault report was received by the Supplier.
- 5.3.4 Planned downtime of the Solution, when it is not available to system users, e.g. for planned maintenance, Service Windows, installation of new versions, updates and upgrades, including upgrades as a result of the Identified Change, shall be notified to the Customer at least three weeks in advance and shall take place after 17:00.
- 5.3.5 The Supplier shall provide the Customer with a monthly log report of reported and resolved faults, incidents and problems at no extra cost.

6. DEDUCTABLE AMOUNTS FROM SUPPORT AND MAINTENANCE FEE

- 6.1 If the Supplier does not begin to remedy an Incident, Error or Problem within the response time in accordance with section 5.3, a penalty is payable by deduction from the Support and Maintenance Fee in the next month's invoicing as follows.
- 6.2 **Fines for deficiency in Service Level for Response/Reaction Time is calculated based on the number of Errors and Incidents that have not been responded to within the specified time:**
- For violation of the Response Time for Priority 1 Incidents, a fine of SEK 50,000 kr is imposed.
 - For violation of the Response Time for Priority 2 incidents, a fine of 30 000 kr is imposed.
 - For violation of the Response Time for Priority 3 Incidents a fine of 20 000 kr is imposed.

Incident /priority	Fine per Incident	Calculated per commenced two-hour period within the opening hours
Priority 1 Incidents	50 000 kr	Two-hour period after the end of the specified Response Time for Priority 1 in Tables 1, 2, 3 and 4
Priority 2 Incidents	30 000 kr	Two-hour period after the end of the specified Response Time for Priority 2 in Tables 1, 2, 3 and 4
Priority 3 Incidents	20 000 kr	Two-hour period after the end of the specified Response Time for Priority 3 in Tables 1, 2, 3 and 4

Table 5, Fines for deficiency in Service Level for Response/Reaction Time

6.2.1 The penalty is paid by deduction from the Support and Maintenance Fee, which is paid after each month. In accordance with the Customer's internal report on reported faults and incidents, which is reconciled with the Supplier's log report, the Customer deducts the penalty from the Supplier's additional compensation for the next period.

The penalty deduction per month may never exceed the fee itself.

If the penalty ceiling has been reached for 2 months or more during the first year after the Support and Maintenance Commitment has come into force, this constitutes a material breach of contract that entitles the Customer to terminate the Agreement with immediate effect.

The Supplier is responsible for providing a monthly extract from its case management system as a basis for calculating any penalties.