



**HELSEPLATTFORMEN**  
for pasientens helsetjeneste

# **Procurement of an EHR solution with adjacent systems and services**

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## **Invitation to Dialogue**

**V Appendix 1 Customer Requirement Specification**

**Based on SSA-V**

**Case number: 2016/238**

## History

Version	Responsibility	Date	Comments/Changes
v1.0	Helseplattformen	02.02.17	Version v1.0 shared with the Contractors

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# 1 INTRODUCTION

## 1.1 GENERAL

This Appendix contains the Customer's requirements regarding the Maintenance Contract related to the EHR solution.

The ITD documents describe the starting point for the competitive dialogue and may be altered based on proposals from Contractors. When the dialogue phase is concluded, the Customer will issue a final set of ITD documents that the Contractor shall base its final offer upon. It is not permissible to negotiate the final offers. Only clarifications, specifications and fine-tuning are allowed, see FOA § 20-9.

To assist Contractors in completing their responses supporting text in the form of instructions or examples have been included in the documents. These supporting texts will be replaced, reformatted or deleted before signing of the Contract.

## 1.2 LIST OF ANNEXES FOR THIS APPENDIX

N/A

## 1.3 COMPLETION OF THE VARIOUS DOCUMENTS

The Contractor shall answer the Customer's Requirement Specification in accordance with the instructions set out in the ITD Document and below. In order to ensure equal treatment and an efficient dialogue it is important that the instructions are adhered to.

Table 1 below depicts the template where the Requirements Specifications are set out. In Table 2 below the various columns are explained.

Table 1 - Requirement table

**Imp:** Importance (O/H/M/L), **ToF:** Time of fulfilment (1/2/3/4), **D:** Describe (D/DX), **Doc:** Documentation (DC, SC, DT, A, I, O), **ToReq:** Type of requirement (C, H, M, GP, P)

No.	Requirement	Imp	ToF	D	Doc	ToReq
	<b>Requirement title</b> Requirement  <b>Dedicated area/function [only relevant for T Appendix 1B]:</b> • XX <b>To be considered [only relevant for T Appendix 1B]:</b> • XX					

Table 2 – Explanation of requirement table

Field	Description
No.	The Customer's unique identifier of a requirement. All references to requirements shall be done using this number.  Requirements set out under the Delivery Contract are numbered as follows:

Field	Description
	<ul style="list-style-type: none"> <li>Gn (G1, G2, ...) for General requirements (T Appendix 1A)</li> <li>Fn (F1, F2, ...) for Functional requirements (T Appendix 1B)</li> <li>Tn (T1, T2, ...) for Technical requirements (T Appendix 1C)</li> <li>Dn (D1, D2, ...) for Training requirements (T Appendix 1D)</li> </ul> <p>Requirements set out under the Maintenance Contract are numbered as follows:</p> <ul style="list-style-type: none"> <li>Vn (V1, V2, ...) for all requirements (V Appendix 1)</li> </ul>
Requirement	<p>The Customer's specification of the requirement.</p> <p><u>The following applies to T Appendix 1B only:</u></p> <ul style="list-style-type: none"> <li>The <b>"Dedicated area/function"</b> denotation is the Customer's indication of whether a given requirement is associated with multiple enterprise capabilities and sub-capabilities (cf. <i>T Appendix 1B, Chapter 2</i>) and/or areas of particular focus (cf. <i>T Appendix 1B, Chapter 4</i>). The Contractor shall when describing its response to a requirement, ensure that the description at least covers the listed denotations (enterprise capabilities and sub-capabilities and/or areas of particular focus). The Contractor is encouraged to include other relevant capabilities and/or areas of particular focus not specifically listed. If the response is the same for two or more denotations, the Contractor is asked not to duplicate the response, but simply to explain which denotations the response is valid for.</li> <li>The <b>"To be considered"</b> denotation indicates that the Customer is yet undecided whether the given requirement is relevant for the subsequent enterprise capabilities and/or areas of particular focus. This decision will be made during the dialogue phase.</li> <li>The <b>"Integration"</b> denotation is the Customer's indication that an integration with an external or third party system will be required for the given requirement. If several enterprise (sub-) capabilities are listed under the "Dedicated area/function" for the given requirement, the integration might be relevant for one, several or all of them.</li> </ul>
Imp (Importance – O/H/M/L)	<p>The Customer's guidance on the importance of the requirement:</p> <ul style="list-style-type: none"> <li>O – Obligatory. All obligatory requirements <b>must be satisfied</b>. If requirements with this classification are not satisfied, the <b>proposal will be rejected</b>.</li> <li>H – High importance. It is very important that the requirement is satisfied. At least 80 per cent of these requirements must be satisfied after the dialogue phase is completed (i.e., in the best and final Tender), cf. <i>ITD Document, Chapter 25.2</i></li> <li>M – Medium importance. It is important that the requirement is satisfied.</li> <li>L – Low importance. The requirement is desirable but it is less important that the requirement is satisfied.</li> </ul>
ToF (Time of fulfilment – 1/2/3/4)	<p>The Customer's deadline for fulfilment of the requirement:</p> <ul style="list-style-type: none"> <li>1 – Within delivery of the initial proposal</li> <li>2 – Within delivery of the final proposal</li> <li>3 – Within start of the Customers' acceptance test, as set out in the implementation plan for Helseplattformen Main Project, cf. <i>T Appendix 3</i> and in accordance with the test and approval procedures set out in <i>T Appendix 4</i></li> <li>4 – Other. Individual deadline set out in the particular requirement (This applies especially for areas where the Customer and Contractor need close cooperation to decide the date of fulfilment)</li> </ul> <p>Note that where the deadline for fulfilment is later than the time of submission of the Tender, the compliance with the requirement will be considered based on the submitted documentation.</p>

Field	Description
D (Describe – D/DX)  and  Confirm requirement	<ul style="list-style-type: none"> <li>D - The requirement denotation “D” indicates that the Contractor must describe how the requirement is satisfied. The description for a requirement specification denoted “D” should not exceed 4 A-4 pages, including documentation, unless otherwise specified.</li> <li>DX – The requirement denotation “DX” indicates that the Contractor must provide a short description of how the requirement is satisfied, limited to a maximum of 1000 characters per requirement. The Contractor may at a later stage of the dialogue phase be asked to give a more detailed or complete description of the same requirement.</li> <li>N/A – The requirement denotation “N/A” indicates that the requirement is a “confirm requirement” where the response shall be Yes/No in <i>T Appendix 2A2 – 2D2</i> and <i>V Appendix 2A2</i></li> </ul> <p>Note that the Contractor shall as part of the response to the particular requirement requiring development describe the scope and size of development and the time schedule for that development. In the list of requirements requiring development that is to be submitted in <i>Appendix C0 - Annex 2</i> and taken into account in the Contractor’s response to <i>Appendix C2</i>, reference shall be made to this description. For requirements requiring development the Contractor shall fill out the columns related to development in <i>T Appendix 2A2 – 2D2</i> and <i>V Appendix 2A2</i>.</p>
Doc (Documentation of requirements – DC, SC, DT, A, I, O)	Requirements for type and extent of documentation of a requirement: <ul style="list-style-type: none"> <li>Declaration of Confirmation (DC) – the requirement shall be demonstrated by a declaration issued by the Contractor</li> <li>Standard Certification (SC) – the requirement shall be demonstrated by submission of an certification of coherence to a standard</li> <li>Demonstration/Test of requirement (DT)</li> <li>Analysis (A) - a reasoned explanation</li> <li>Information (I) (The requirement is to deliver specified types of information as opposed to answer out functional and technical requirements)</li> <li>Other (O) – the type of documentation is particular specified for the relevant requirement</li> </ul> <p>A requirement may desire one or more of the above types of documentation.</p> <p>Note that the required documentation may be separate, both in type and extent, for the purpose of evaluation and test and acceptance.</p>
ToReq (Type of requirement – H, M, GP, P, C)	<p>“Type of requirement” identifies what entity the particular requirement is relevant for. For the purpose of this procurement the following categories are applicable:</p> <ul style="list-style-type: none"> <li>Hospital ( HMN ) = H</li> <li>Municipalities (“Kommune”) = M</li> <li>General Practitioner (“Fastlege”) = GP</li> <li>Citizens/Patient = P</li> <li>Common for requirement for H , M , GP = C</li> </ul> <p>Other entity combinations will be marked by combining these indicators.</p>

## 1.4 BACKGROUND AND PURPOSE OF THIS APPENDIX

This Appendix contains the requirements regarding maintenance and support of the offered solution. The purpose of this Appendix is to specify and clarify the Contractor’s duties and services in relation to maintenance and support of the solution.

The requirements in this Appendix is related to the provision of maintenance and support services for software and any equipment as specified in detail.

## 1.5 DEFINITIONS

Terms and expressions with capital letters shall have the meaning set out in *Appendix C4*. Terms marked with ***bold, italic font*** are terms that the Customer has wished to provide an explanation of to ensure a common understanding, cf. *Appendix C4*. These terms and definitions should be interpreted in the context of this specific procurement, and are not intended to be general definitions beyond this scope. The terms are in addition to cf. *Appendix C5, Annex C – Glossary of Terms for EHR-S FM*.

## 1.6 STRUCTURE OF THIS APPENDIX

The structure of this Appendix is presented in the following table:

Table 3 - The structure of this Appendix

Chapter 2: <b>Software and tools covered by the services</b>	The purpose of this Chapter is to get an overview of software and tools covered by the offered maintenance services.
Chapter 3: <b>Security requirements</b>	This Chapter focuses on security requirements, especially focusing on general security requirements and requirements regarding remote access.
Chapter 4: <b>Maintenance and support services</b>	The purpose of this Chapter is to get an overview of maintenance and support services required by the Contractor and the Customer.
Chapter 5: <b>Future development plans</b>	This Chapter focuses on the future development plans for the solution.
Chapter 6: <b>New versions</b>	This Chapter contains requirements regarding new versions of the applications and software in this Agreement.
Chapter 7: <b>Language</b>	The purpose of this Chapter is to ensure that the solution and the Contractor meets the language requirements for all aspects of the maintenance.
Chapter 8: <b>Documentation</b>	This Chapter focuses on requirements regarding documentation as a part of this Agreement.
Chapter 9: <b>Training</b>	The purpose of this Chapter is to outline how the Contractor's offered training will meet the Customer's need for training after the implementation of the solution and throughout the solution's lifetime.
Chapter 10: <b>Establishment of the maintenance services</b>	The purpose of this Chapter is for the Contractor to document how the services covered by this Agreement are established.

## 2 SOFTWARE AND TOOLS COVERED BY THE SERVICES

The purpose of this Chapter is to get an overview of software and tools covered by the offered maintenance services. The Customer expects a comprehensive overview of all software and tools that will be maintained and supported as a part of this Agreement.

**Imp:** Importance (O/H/M/L), **ToF:** Time of fulfilment (1/2/3/4), **D:** Describe (D/DX), **Doc:** Documentation (DC, SC, DT, A, I, O), **ToReq:** Type of requirement (C, H, M, GP, P)

No.	Requirement	Imp	ToF	D	Doc	ToReq
M26584	<b>Overview of software covered by this Agreement</b> The Contractor shall in V Appendix 2A1 describe and provide a complete overview of all software and tools covered by the Maintenance Agreement.  The description shall include, but not be limited to: - Standard software - Specialised software - Integration solutions - Third party components  The list of all offered software and tools described in Appendix C0, that is to be supported and maintained, shall also be described in V Appendix 2A1. The Contractor's response shall be aligned with the response completed in <i>cf. V Appendix 3</i> .	H	2	D	DC;I	C
M26586	<b>Software required for maintenance services</b> The Contractor shall in V Appendix 2A1 describe any software that is required or considered to be a prerequisite for the offered maintenance to function optimally.	H	2	D	DC	C
M26587	<b>Necessary authorisations/rights</b> The Contractor confirms that they are responsible for ensuring that they have the necessary authorisations and rights for the offered software, equipment and tools used during the maintenance contract period.	H	2	N/A	DC	C

## 3 SECURITY REQUIREMENTS

This Chapter focuses on security requirements. The Contractor's personnel will during the maintenance period have the need to access areas and information with restricted access. Security regulations coinciding with those for the Customer's employees will be required for the Contractor's personnel.

Personal information shall be safeguarded. Processed personal data shall be in accordance with the basic policy considerations, including the need to protect personal integrity, privacy and adequate quality of personal data.



### 3.1 PHYSICAL SECURITY

**Imp:** Importance (O/H/M/L), **ToF:** Time of fulfilment (1/2/3/4), **D:** Describe (D/DX), **Doc:** Documentation (DC, SC, DT, A, I, O), **ToReq:** Type of requirement (C, H, M, GP, P)

No.	Requirement	Imp	ToF	D	Doc	ToReq
M26590	<b>Physical security</b> The Contractor confirms that the Customer's routines for physical access and access control on Customer premises shall be followed and complied with.	H	2	N/A	DC	C

### 3.2 REMOTE ACCESS

This section focuses on use of remote access. Remote access will be used when the Contractor shall perform maintenance service, error analyses, changes or other agreed activities as a part of this Agreement. Any use of remote access will be based on a prior agreement with the Customer.

Remote access solutions will be specified and supplied by the Customer later in the dialogue phase. Access will only be given to the Contractor by the Customer when needed.

The following laws and regulations regulates access to health and personal information and the Contractor is expected to stay updated and in compliance with them. Important laws and regulations in relation to remote access (the list is not exhaustive):

- Helsepersonelloven, §21, §25, §45, cf. *Appendix C6*, ID L5.
- Pasientjournalloven, §15, §16, §17, §19, cf. *Appendix C6*, ID L1.
- Forvaltningsloven, §13, cf. *Appendix C6*, ID L16.
- Helsenregisterloven, §17, cf. *Appendix C6*, ID L2.
- Personopplysningsloven, cf. *Appendix C6*, ID L3.

**Imp:** Importance (O/H/M/L), **ToF:** Time of fulfilment (1/2/3/4), **D:** Describe (D/DX), **Doc:** Documentation (DC, SC, DT, A, I, O), **ToReq:** Type of requirement (C, H, M, GP, P)

No.	Requirement	Imp	ToF	D	Doc	ToReq
M26591	<b>Solutions for remote access</b> The Contractor shall in V Appendix 2A1 describe how the offered solution and services for maintenance and support supports solutions for remote access.	H	2	D	A;DC	C
M26592	<b>Use of Customer's solution for remote access</b> The Contractor confirms that they shall use the Customer's solution for remote access.	H	2	N/A	DC	C
M26593	<b>Agreement when accessing operational environment</b> The Contractor confirms that when accessing the Customer's operational environment, or other Customer systems, this shall only be done after establishing a prior agreement with the Customer.	H	2	N/A	DC	C
M26594	<b>Safety and information security on remote access</b> The Contractor shall in V Appendix 2A1 describe the internal procedures for ensuring the Customer's safety and information	H	2	D	A;DC	C

No.	Requirement	Imp	ToF	D	Doc	ToReq
	security when using remote access towards the Customer.					
M26595	<b>No public users on remote access</b> The Contractor confirms that all users of remote access shall be personal users (public users are not permitted).	H	2	N/A	DC	C
M26596	<b>Required information for users needing access</b> The Contractor confirms that they shall provide the following information for the users that require access; cell phone number and personal information (e.g., social security number).	M	2	N/A	DC	C
M26597	<b>Accepting policies before gaining access</b> The Contractor confirms that they shall accept current relevant policies, including user policies, statement of confidentiality and data processing agreements prior to obtaining access.	H	2	N/A	DC	C

## 4 MAINTENANCE AND SUPPORT SERVICES

The purpose of this Chapter is to get an overview of required maintenance and support services. The Customer expects maintenance and support services that enables the Customer to attain the key goals and principles set by the Customer, cf. *Appendix C0, Chapter 10*. Furthermore, the Customer expects a model for delivering maintenance and support services that is aligned with the Customer's procedures and standards and that facilitates efficient allocation of resources, work and tasks.

The present situation regarding support is that the Customer's own organisations receives all issues from the end-users for internal proceeding before anything is reported to the Contractors. The Customer organisations administrate a call centre for receiving and registering issues as well as handling of user support. The principle today is that the Customer organisations seeks to find a solution to all issues before reporting anything to the Contractor. Defects in software is reported to the Contractor. The Contractor's responsibility is to fix reported errors in their own software and to deliver error correction according to agreed procedures. The end-users in the Customer organisations is not in direct contact with the Contractors' personnel.

When responding to the requirements regarding maintenance and support services the Contractor may propose to alter the different processes and suggest alternative responsibilities related to maintenance and support services.

### 4.1 GENERAL MAINTENANCE AND SUPPORT SERVICES

**Imp:** Importance (O/H/M/L), **ToF:** Time of fulfilment (1/2/3/4), **D:** Describe (D/DX), **Doc:** Documentation (DC, SC, DT, A, I, O), **ToReq:** Type of requirement (C, H, M, GP, P)

No.	Requirement	Imp	ToF	D	Doc	ToReq
M26600	<b>Maintenance responsibilities</b> The Contractor shall in V Appendix 2A1 describe and outline activities and corresponding responsibilities related to maintenance and support.  The description shall include both the responsibility of the	H	2	D	DC	C

No.	Requirement	Imp	ToF	D	Doc	ToReq
	<p>Contractor and the Customer. The following fundamentals of Maintenance is suggested to be included in the description:</p> <ul style="list-style-type: none"> <li>• Proactive maintenance</li> <li>• Versions and releases information</li> <li>• Versions and releases consequences information / Information on Versions and releases consequences</li> <li>• Versions and releases delivery</li> <li>• Bug fixes and error correcting</li> <li>• Integrations maintenance</li> <li>• Documentation maintenance</li> <li>• Further development based on Contractor's customer base</li> </ul> <p>The description (list of activities and responsibilities) shall include the Contractor's requirements regarding Customer competency and/or capacity (i.e., FTEs) as well as the required staffing from the Customer and Contractor side in order to maintain and support the software solution. ITIL terminology should be used where applicable.</p>					
M26743	<p><b>Maintenance activities not included in the Maintenance Agreement</b></p> <p>The Contractor shall in V Appendix 2A1 describe which maintenance activities the Customer most likely (based on the Contractor's experience) will order from the Contractor that is not part of the maintenance agreement.</p>	M	3	D	DC	C
M26744	<p><b>The Contractor's support to the Customer after the first deployment</b></p> <p>The Contractor shall in V Appendix 2A1 describe in which way and with which activities and maintenance services they will support the Customer from first deployment and until the Customer organisation has reached the level and competence required to fulfil the customer responsibilities during maintenance (in accordance with the outlined responsibilities during maintenance).</p> <p>The Contractor shall in their answer include an estimate for how long the Customer will need this extra support.</p>	M	3	D	DC	C
M26602	<p><b>Compatibility of the solution</b></p> <p>The Contractor shall in V Appendix 2A1 describe how the software is kept compatible with respect to e.g., relevant interfaces, tools, hardware, operating systems, databases and other middleware.</p>	H	2	D	A;DC	C
M26603	<p><b>Procedures to detect incompatibilities</b></p> <p>The Contractor shall in V Appendix 2A1 describe procedures to detect incompatibilities between the solution and released patches from third party components.</p>	M	2	D	DC	C
M26604	<p><b>Safeguarding integrations and interfaces while upgrading the solution</b></p> <p>The Contractor confirms that they shall maintain and safeguard integrations/interfaces with other systems in the case of upgrades/changes in the offered solution.</p>	H	2	N/A	DC	C
M26605	<p><b>Customer's Life Cycle Management</b></p> <p>The Contractor shall in V Appendix 2A1 describe how the Contractor will support the Customer with Life Cycle Management keeping the offered solution up to date.</p>	H	2	D	DC	C

No.	Requirement	Imp	ToF	D	Doc	ToReq
M26607	<b>Monitored services</b> The Contractor shall in V Appendix 2A1 describe the services to be monitored as a part of maintenance and support.	L	2	D	I;DT	C
M26608	<b>Rollback procedures</b> The Contractor shall in V Appendix 2A1 describe the procedures for rollback as a part of maintenance and support services.	H	2	D	DC	C
M26609	<b>Operational tools</b> The Contractor shall in V Appendix 2A1 describe the operational tools (support and maintenance tools) that will be made available to the Customer as a part of the offered support and maintenance services.	H	2	D	DC	C

## 4.2 ERROR MANAGEMENT

This Chapter contains requirements for error management throughout the maintenance period. The Contractor shall describe processes and procedures for error management in *V Appendix 6*, as a part of the cooperation plan. When errors occur the Customer will categorise errors within the definitions provided in *V Appendix 5*. After errors are detected, these shall be reported to the Contractor with the error category A, B, C or D.

The Customer expects a solution where the Customer and the Contractor can interact in their process regarding submitting and monitoring of errors.

**Imp:** Importance (O/H/M/L), **ToF:** Time of fulfilment (1/2/3/4), **D:** Describe (D/DX), **Doc:** Documentation (DC, SC, DT, A, I, O), **ToReq:** Type of requirement (C, H, M, GP, P)

No.	Requirement	Imp	ToF	D	Doc	ToReq
M26610	<b>System for handling Customer inquiries and solution messages</b> The Contractor confirms that they have their own system for handling and administration of inquiries from the Customer and communication from the solution e.g., error messages, warnings and other solution messages.	H	2	N/A	DC	C
M26612	<b>Integration of Contractor and Customer helpdesk systems</b> The Contractor shall in V Appendix 2A1 describe their system for handling e.g., error messages and how this system can be integrated with helpdesk systems.  The description shall provide information regarding e.g., preconditions set by the Contractor system and preparations necessary by the Customer in order to establish integrations.	M	3	D	DC	C
M26614	<b>Status and information updates</b> The Contractor confirms that they shall update status and information on e.g., issues and reported errors in a way that reflects work progress and corrective actions/solutions in the helpdesk system.	M	3	N/A	DC	C
M26615	<b>Distinguish errors from development requests</b> The Contractor confirms that they can separate the errors from the development requests in their own system for handling error messages.	M	3	N/A	DC	C

No.	Requirement	Imp	ToF	D	Doc	ToReq
M26616	<b>No change in classification without consent</b> The Contractor confirms that they shall not change the categorisation or priority of errors and development requests without the Customer's consent.	H	2	N/A	DC	C
M26619	<b>Requesting necessary information when missing</b> The Contractor confirms that if an addressed issue (e.g., error, incident or development request) is not followed by the necessary information, the Contractor will make the Customer aware of this immediately.	M	2	N/A	DC	C
M26620	<b>Functionality for collecting and analysing user patterns</b> The Contractor shall in V Appendix 2A1 describe the functionality to collect and analyse user patterns that leads to conflicting operations and errors.	H	3	D	DC	C
M26621	<b>Error message linked to solution logs</b> The Contractor confirms that error messages for users are linked to relevant logs in the solution (e.g., system event log).	H	3	N/A	DC	C
M26622	<b>Conducting diagnosis</b> The Contractor confirms that if the Customer is in doubt if an error is caused by software/solution, equipment or network-infrastructure, the Customer may request that the Contractor conducts appropriate diagnosis.	M	2	N/A	DC	C
M26626	<b>Evaluating procedures when numerous issues/errors occur</b> The Contractor shall in V Appendix 2A1 describe the procedures to analyse and investigate circumstances where numerous of issues occur. E.g., many issues occurring within a short period of time, issues with a type of functionality in the solution and similar issues affecting many users at the same time.	H	2	D	DC	C
M26628	<b>Log and information regarding errors</b> The Contractor confirms that they will log and inform the Customer about known errors and defects and that the Contractor will provide information about how and when this is planned solved as well as information about any workarounds.	M	2	N/A	DC	C
M26629	<b>Information needed to perform prioritisation and review of categorisation</b> The Contractor confirms that Customer issues, errors and development requests will be enriched with appropriate information so that the Customer is able to perform prioritisation and review the categorisation.	M	2	N/A	DC	C
M26631	<b>Modify and extract error reports</b> The Contractor shall in V Appendix 2A1 describe the possibilities the Customer has to modify and extract different types of error-reports.	M	2	D	DC	C

### 4.3 PROACTIVE MAINTENANCE

The purpose of this Chapter is to get an overview of maintenance actions that prevents unexpected downtime of the solution and allows the organisation to schedule repairs, inspections and proactive maintenance. The Customer expects a solution delivering high quality and continuously services where services are maintained and repaired before issues affects operational work negatively.

**Imp:** Importance (O/H/M/L), **ToF:** Time of fulfilment (1/2/3/4), **D:** Describe (D/DX), **Doc:** Documentation (DC, SC, DT, A, I, O), **ToReq:** Type of requirement (C, H, M, GP, P)

No.	Requirement	Imp	ToF	D	Doc	ToReq
M26634	<b>Method for preventive/ proactively maintenance</b> The Contractor shall in V Appendix 2A1 describe its methodology for preventive/proactive maintenance on the solution offered to the Customer.	H	2	D	DC	C
M26635	<b>Proactive monitoring</b> The Contractor shall in V Appendix 2A1 describe how they will proactively monitor the Customer's use of the software, so that they help to uncover software-bugs or capacity-, performance- or stability problems at an early stage. This description should also include information about whether this monitoring is based on automation or dependent on human analytical capabilities.	M	2	D	A;DC	C
M26636	<b>Preventing deteriorating of the solution</b> The Contractor shall in V Appendix 2A1 describe how the Contractor's proactive maintenance will ensure that the solution does not deteriorate over time. This includes keeping up with the latest technology developments and standards, and keeping complexity down by refactoring and employing good quality standards.	M	2	D	DC	C

## 5 FUTURE DEVELOPMENT PLANS

The Customer expects a solution that continuously evolve and is updated according to the latest developments and research within the EHR field. The purpose of this Chapter is to ensure that the offered solution is maintained and developed in a way that supports the Customer's expectations.

**Imp:** Importance (O/H/M/L), **ToF:** Time of fulfilment (1/2/3/4), **D:** Describe (D/DX), **Doc:** Documentation (DC, SC, DT, A, I, O), **ToReq:** Type of requirement (C, H, M, GP, P)

No.	Requirement	Imp	ToF	D	Doc	ToReq
M26638	<b>Development roadmap</b> The Contractor confirms that the described development plan ("Road map") for the offered solution, cf. <i>T Appendix 1A, Chapter 5.2</i> , will be valid and complied with as a part of this Agreement.	M	2	N/A	DC	C
M26639	<b>Evolving the development roadmap</b> The Contractor confirms that the development roadmap is continuously maintained and evolved in order to reflect general development in the EHR field.	M	2	N/A	DC	C
M26745	<b>Rules and regulations in development roadmap</b> The Contractor shall in V Appendix 2A1 describe how they will include changes in rules and regulations in the development roadmap.	M	2	D	DC	C
M26640	<b>Upgrade frequency</b> The Contractor shall in V Appendix 2A1 describe their recommended upgrade frequency of the offered software.	H	2	D	DC	C

## 6 NEW VERSIONS

As a part of the Maintenance Contract new versions of the solution will be made available for the Customer. New versions of applications and software that are specified by the Contractor in *V Appendix 2A1* are included in the Agreement.

The Contractor shall, during the contract period, deliver new versions of applications and software covered by the maintenance service at defined points in time. The Customer expects that when new versions of software are released then the Contractor shall make these available to the Customer as soon as possible. The delivery of new versions is expected to be predictable and regularly and in accordance with an agreed upon plan. The purpose of this Chapter is to clarify requirements for the process/procedures for new versions of software covered by the services.

**Imp:** Importance (O/H/M/L), **ToF:** Time of fulfilment (1/2/3/4), **D:** Describe (D/DX), **Doc:** Documentation (DC, SC, DT, A, I, O), **ToReq:** Type of requirement (C, H, M, GP, P)

No.	Requirement	Imp	ToF	D	Doc	ToReq
M26643	<b>Information about new releases</b> The Contractor confirms that they will meet the Customer ahead of main releases to explain and go through new functionality.	M	2	N/A	DC	C
M26644	<b>Procedures for making new versions of software available</b> The Contractor shall in <i>V Appendix 2A1</i> describe their procedures for making new versions of software available for the Customer. This description shall include a timeline showing the steps from the new version releases from the Contractor until the version is made available to the Customer. It shall also include a description of procedures for upgrade, delivery and production setup at Customer site, handling of integrations as well as the relation to testing and approval, cf. <i>T Appendix 4</i> . Any prerequisites set by the Contractor shall be described.	M	2	D	DC;O	C
M26646	<b>Information about technical personnel's qualifications prior to new versions</b> The Contractor confirms that they prior to releasing new versions will inform the Customer about the need for qualifications and competency that the Customer's technical personnel must have.	M	2	N/A	DC	C
M26648	<b>Testing of new versions and deliveries prior to delivery to the Customer</b> The Contractor confirms that all new deliveries will be tested by the Contractor as set out in cf. <i>T Appendix 4</i> .	H	2	N/A	DC	C
M26649	<b>Documentation accompanying new versions</b> The Contractor confirms that when a new version is delivered this will include (in addition to the new software version): - A new version of relevant existing documentation as described in cf. <i>T Appendix 1A, Chapter 3</i> - Test documentation that shows the result of the Contractor's test. Both for functionality testing and performance testing - An overview of all new functionality and all changes in the new version - An overview of errors that are corrected in the version and known defects - Overview of changes with regards to integrations/interfaces and required changes to the technical platform - Release Notes	H	2	N/A	DC	C



No.	Requirement	Imp	ToF	D	Doc	ToReq
	- Configurations guide					

## 7 LANGUAGE

The purpose of this Chapter is to ensure that the solution and the Contractor meets the language requirements for all aspects of the maintenance and the maintenance period.

The Customer expects that the same principles for language settings agreed upon in cf. *T Appendix 1A, Chapter 2* is fulfilled through the maintenance period. Some language requirements are different for different user groups. The different user groups are defined in cf. *Chapter 9*. Overall the language requirement for end-users and super-users is Norwegian. For administrators and technical users the requirement is English or Norwegian.

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No.	Requirement	Imp	ToF	D	Doc	ToReq
M26655	<b>Language skills</b> The Contractor confirms that the Contractor, when answering the language requirements, assumes a language skill level equal to a fluent level according to Council of Europe C1 and C2 classification, <a href="http://www.coe.int/t/dg4/linguistic/cadre1_en.asp">http://www.coe.int/t/dg4/linguistic/cadre1_en.asp</a> .	H	2	N/A	DC	C
M26657	<b>Language requirements for Documentation</b> The Contractor confirms that language requirements for Documentation set, cf. <i>T Appendix 1A, Chapter 2.2</i> , will be fulfilled in all documents made available to the Customer in the maintenance period.	H	2	N/A	DC	C
M26658	<b>Language requirements for GUI</b> The Contractor confirms that language requirements for <b>GUI</b> set, cf. <i>T Appendix 1A, Chapter 2.1 and 2.3</i> , will be fulfilled in all <b>GUI</b> -releases made available to the Customer in the maintenance period.	H	2	N/A	DC	C
M26659	<b>Support language</b> The Contractor confirms that all communication with the Customer (verbal and written) regarding errors and software support and maintenance will be in Norwegian or English.	H	2	N/A	DC	C
M26660	<b>Error messages in the solution</b> The Contractor confirms that language requirements set, cf. <i>T Appendix 1A Chapter 2.1 and 2.4</i> , will be fulfilled in the maintenance period.	H	2	N/A	DC	C
M26661	<b>Training language in the maintenance period</b> The Contractor confirms that language requirements set, cf. <i>T Appendix 1A, Chapter 2.1 and 2.5</i> , shall be fulfilled in all training activities agreed upon through the maintenance period.	H	2	N/A	DC	C



## 8 DOCUMENTATION

The purpose of the documentation requirements is to acquire knowledge that makes the Customer (or third parties) able to use, commission, operate and maintain the solution. The Customer expects a solution that continues to be developed throughout the maintenance period. Documentation will be an important part of the solution and services provided.

The Customer expects documentation that is updated and in relation to the performed support and maintenance services. General documentation requirements and process for delivery, approval and update of documentation will follow the requirements in cf. *T Appendix 1A, Chapter 3*. In addition, this Chapter includes requirements for documentation related to the Maintenance Contract.

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No.	Requirement	Imp	ToF	D	Doc	ToReq
M26662	<b>Documentation - general</b> The Contractor confirms that documentation related to the Maintenance Agreement shall follow the requirements regarding general documentation, cf. <i>T Appendix 1A, Chapter 3.1</i> .	M	2	N/A	DC	C
M26663	<b>Documentation - delivery</b> The Contractor confirms that documentation related to the Maintenance Agreement shall follow the requirements regarding delivery of documentation, cf. <i>T Appendix 1A, Chapter 3.2</i> .	H	2	N/A	DC	C
M26664	<b>Documentation - maintenance</b> The Contractor shall in V Appendix 2A1 describe the documentation the Contractor will prepare related to the maintenance services in this Agreement.	M	2	D	DC	C
M26665	<b>Documentation activities</b> The Contractor shall in V Appendix 2A1 describe how and when activities related to maintenance documentation shall be done.	M	2	D	DC	C

## 9 TRAINING

The purpose of this Chapter is to outline how the Contractor's offered training will meet the Customer's need for training after the implementation of the solution and throughout the solution's lifetime. When changes are made to the solution the various groups of users may need training to adopt to these changes and when personnel changes are made, this may also trigger training needs.

The requirements differentiate between the following user groups of the solution:

- End-user: A person who ultimately use or is intended to ultimately use a product.
- Super-user: A user with the experience and competency to help other users and assist in communication with the service desk/help desk or other parts of the IT service provider. Super-users are often experts in the business processes supported by an IT service and can provide support for minor incidents and training.
- Administrator: A person working with configuration and setup of the solution in the user organisation.

- **Technical users:** A system administrator, database administrator, network administrator, server administrator or in any other way a person responsible for running technically advanced information systems.

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No.	Requirement	Imp	ToF	D	Doc	ToReq
M26666	<b>Update of training materials</b> The Contractor shall in V Appendix 2A1 describe how they handle updates on training materials (delivered during implementation or after implementation) relative to new versions of the solution	M	2	D	DC	C
M26667	<b>Conducting trainings</b> The Contractor shall in V Appendix 2A1 describe how they recommend training to be conducted for the various target-groups when new functionality is introduced during the maintenance period.	H	2	D	DC	C
M26668	<b>Customer's rights to conduct and implement training</b> The Contractor confirms that the Customer has the right to implement training activities with use of internal and/or external expertise.	H	2	N/A	DC	C
M26669	<b>E-learning and "Self-Training"</b> The Contractor confirms that if E-learning courses are offered during the maintenance period they will follow the requirements regarding e-learning and self-training, cf. <i>T Appendix 1D, Chapter 2.5</i> .	H	2	N/A	DC	C
M26670	<b>End-users' self-training</b> The Contractor shall in V Appendix 2A1 describe how the solution support the needs for <b>end-users'</b> self-training throughout the maintenance period	H	2	D	DC	C
M26671	<b>Measuring training fulfilment and quality</b> The Contractor shall in V Appendix 2A1 describe how to evaluate and measure fulfilment and quality of training throughout the maintenance period.	H	2	D	DC	C
M26672	<b>Training administration</b> The Contractor shall in V Appendix 2A1 describe the need for administration regards to training (e.g., registration, report, follow up, certificates) and need for system/support for administration.	H	2	D	DC	C
M26673	<b>Training offered when new technology is included in new versions</b> The Contractor confirms that if a new version of the system includes use of new technology the Contractor will offer training for technical users.	M	2	N/A	DC	C
M26674	<b>Training offered when new technical and administrative users</b> The Contractor confirms that they will offer training for new technical users and new administrative users.	M	2	N/A	DC	C

## 10 ESTABLISHMENT OF THE MAINTENANCE SERVICES

The purpose of this Chapter is for the Contractor to describe and provide information regarding how the services covered by this Agreement will be established (the "Establishment Plan"). The Customer expects an Establishment Plan that includes a progress plan, a description of roles and

responsibilities as well as describing the need for information and deliveries from any previous maintenance contractors.

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No.	Requirement	Imp	ToF	D	Doc	ToReq
M26675	<p><b>Plan for the establishment phase of the maintenance services</b></p> <p>The Contractor shall in V Appendix 4 describe the establishment plan including activities (incl. the Customer's activities) that are necessary to establish the offered maintenance services.</p> <p>The proposed establishment plan shall include, but is not be limited to:</p> <ul style="list-style-type: none"> <li>- Purpose and goal</li> <li>- Milestones</li> <li>- Description of activities</li> <li>- Estimated time frame for the activities (progress plan)</li> <li>- Deliverables related to the activities (e.g., a delivery tableau)</li> <li>- Organisation of the establishment phase, hereunder roles and responsibilities (Customer and Contractor)</li> <li>- Resource allocation for each of the activities, both for the Customer and the Contractor</li> <li>- Description of any assumptions or conditions for the resources/roles related to this maintenance agreement (both Customer and Contractor personnel)</li> <li>- Activities to ensure information transfer, knowledge transfer and standardisation</li> <li>- Need for information and deliveries from any previous maintenance contractors</li> <li>- Quality assurance activities</li> </ul>	H	3	D	DC	C
M26676	<p><b>Maintenance services established and approved before first Deployment</b></p> <p>The Contractor confirms that the maintenance services will be established and tested before the first "Deployment" of the solution, cf. <i>T Appendix 4, Chapter 4.9</i>.</p>	H	2	N/A	DC	C
M26677	<p><b>Contractor organisation and staffing of team that shall establish the maintenance services</b></p> <p>The Contractor shall in V Appendix 4 describe how the Contractor will organise and staff the team that will establish the maintenance services.</p> <p>The description shall include the Contractor's resources, roles, experience and expertise.</p>	H	2	D	DC	C
M26683	<p><b>Ensure continuity of knowledge or experience</b></p> <p>The Contractor shall in V Appendix 4 describe how the Contractor will utilise accumulated knowledge and gained experience during the implementation and maintenance of the solution throughout the contract period.</p>	M	2	D	DC	C