Procurement of an EHR solution with adjacent systems and services

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Invitation to Dialogue

T Appendix 1A General Requirements

Based on SSA - T

Case number: 2016/238

History

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

Content

Tables

HELSE MIDT-NORGE RHF (983 658 776)

1 INTRODUCTION

1.1 GENERAL

This Appendix contains the Customer's general requirements for the procurement of an **electronic health record (EHR)** solution with adjacent systems and services for the Central Norway Health Region.

The Customer expects the Contractor to have read this Appendix in conjunction with the other ITD documents, and in particular *Appendix C0*, and to reflect upon how to best support the Customer's ambition and objectives for the new EHR solution, cf. *Appendix C0, Chapter 2*, when answering this Tender. The Requirements Specification for the EHR solution that will enable the Customer to reach this ambition are described in:

- *SSA-T Appendix 1A General requirements*

- *SSA-T Appendix 1B Functional requirements*

- *SSA-T Appendix 1C Technical requirements*

- *SSA-T Appendix 1D Training requirements*

Note that in general, all deliveries and pre-requisites or assumptions relevant for the implementation of the EHR solution, both related to the Contractor's Deliverables and the Customer Furnished Assets (CFA), cf. *Appendix C7,* shall be taken into account in the Contractor's Project and Progress Plan, cf. *T Appendix 3.*

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
	Requirement title Requirement **Dedicated area/function [only relevant for T Appendix 1B]:** • XX **To be considered [only relevant for T Appendix 1B]:** • 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: • Gn (G1, G2, …) for General requirements (T Appendix 1A) • Fn (F1, F2, …) for Functional requirements (T Appendix 1B) • Tn (T1, T2, …) for Technical requirements (T Appendix 1C) • Dn (D1, D2, …) for Training requirements (T Appendix 1D) Requirements set out under the Maintenance Contract are numbered as follows: • Vn (V1, V2, …) for all requirements (V Appendix 1)
Requirement	The Customer's specification of the requirement. The following applies to T Appendix 1B only: • The "**Dedicated area/function**" denotation is the Customer's indication of whether a given requirement is associated with multiple enterprise capabilities and sub-capabilities (cf. *T Appendix 1B, Chapter 2*) and/or areas of particular focus (cf. *T Appendix 1B, Chapter 4*). 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. • The "**To be considered**" 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. • The "**Integration**" 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.
Imp (Importance – O/H/M/L)	The Customer's guidance on the importance of the requirement: • O – Obligatory. All obligatory requirements **must be satisfied.** If requirements with this classification are not satisfied, the **proposal will be rejected.** • 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

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Field	Description
	the best and final Tender), cf. *ITD Document, Chapter 25.2* • M – Medium importance. It is important that the requirement is satisfied. • L – Low importance. The requirement is desirable but it is less important that the requirement is satisfied.
ToF (Time of fulfilment – 1/2/3/4)	The Customer's deadline for fulfilment of the requirement: • 1 – Within delivery of the initial proposal • 2 – Within delivery of the final proposal • 3 – Within start of the Customers' acceptance test, as set out in the implementation plan for Helseplattformen Main Project, cf. *T Appendix 3* and in accordance with the test and approval procedures set out in *T Appendix 4* • 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) 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.
D (Describe – D/DX) and Confirm requirement	• 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. • 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. • N/A – The requirement denotation "N/A" indicates that the requirement is a "confirm requirement" where the response shall be Yes/No in *T Appendix 2A2 – 2D2* and *V Appendix 2A2* 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 Appendix C0 Annex 1 and taken into account in the Contractor's response to *Appendix C2*, reference shall be made to this description. For requirements requiring development the Contractor shall fill out the columns related to development in *T Appendix 2A2 – 2D2* and *V Appendix 2A2*.
Doc (Documentation of requirements – DC, SC, DT, A, I, O)	Requirements for type and extent of documentation of a requirement: • Declaration of Confirmation (DC) – the requirement shall be demonstrated by a declaration issued by the Contractor • Standard Certification (SC) – the requirement shall be demonstrated by submission of an certification of coherence to a standard • Demonstration/Test of requirement (DT) • Analysis (A) - a reasoned explanation • Information (I) (The requirement is to deliver specified types of information as opposed to answer out functional and technical requirements) • Other (O) – the type of documentation is particular specified for the relevant requirement A requirement may desire one or more of the above types of documentation. Note that the required documentation may be separate, both in type and extent, for the purpose of evaluation and test and acceptance.
ToReq (Type of requirement – H, M, GP, P, C)	"Type of requirement" identifies what entity the particular requirement is relevant for. For the purpose of this procurement the following categories are applicable: • Hospital (HMN) = H • Municipalities ("Kommune") = M • General Practitioner ("Fastlege") = GP • Citizens/Patient = P

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Field	Description
	• Common for requirement for H , M , GP = C
	Other entity combinations will be marked by combining these indicators.

1.4 BACKGROUND AND PURPOSE OF THIS APPENDIX

This document presents the Customer's General Requirements, both for the solution delivered by the Contractor and for the Implementation project.

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: **Language**	The purpose of this Chapter is to ensure that the offered solution meets the language requirements of the Customer

Chapter 3: **Documentation**	This Chapter describes the requirements for documentation of the offered solution.

Chapter 4: **Configuration**	This Chapter contains requirements related to configuration of the offered solution, and the technical configuration.

Chapter 5: **Solution flexibility**	This Chapter contains requirements regarding the flexibility of the offered solution and the Contractor's development plans for the solution.

Chapter 6: **Information sharing and data migration**	This section focuses on the challenges related to sharing of information during the transition period from the current EHR systems to the new solution, and data migration from replaced systems to the solution.

Chapter 7: **Options**	This Chapter describes the options of different services and functionality the Customer may buy and use during the SSA-T Agreement.

2 LANGUAGE

The purpose of this Chapter is to ensure the offered solution meets the Customer's language requirements when it comes to:

- Project communication

- Documentation

- Solution

- Support

- Training

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

- End-user: A person who ultimately uses 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.

It is important to use a language that gives the communicating parties the best possible communication and understanding. The language must be easy to understand for the user group.

Overall the language requirement for end-users and super-users is Norwegian. For administrators and technical-users the requirement is English or Norwegian.

2.1 GENERAL LANGUAGE REQUIREMENTS AND PROJECT LANGUAGE

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
G25892	**Language skills** The Contractor confirms that the Contractor when answering the language requirements assumes a language skill level equal to a fluent level. Fluent level is according to Council of Europe C1 and C2 classification, http://www.coe.int/t/dg4/linguistic/cadre1_en.asp.	H	2	N/A	DC	C
G25893	**Project language** The Contractor confirms that the Contractor shall speak English or Norwegian in contact with the Customer.	H	2	N/A	DC	C

No.	Requirement	Imp	ToF	D	Doc	ToReq
G25894	**Project language end-users** The Contractor confirms that the language in contact with the ***end-users*** of the solution shall be Norwegian.	M	2	N/A	DC	C

2.2 LANGUAGE IN DOCUMENTATION

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
G25895	**Documentation language** The Contractor confirms that all delivered documentation shall be in Norwegian or English.	H	2	N/A	DC	C
G25896	**Rights to translate documentation to Norwegian** The Contractor confirms that if documentation is not in Norwegian, the Customer shall have the rights to translate documentation to Norwegian.	M	2	N/A	DC	C

2.3 GRAPHIC USER INTERFACE (GUI) – LANGUAGE

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
G25898	**GUI language configuration** The Contractor shall in T Appendix 2A1 describe which languages the solution's ***GUI*** can be configured to.	M	3	D	DC	C
G25899	**End users' GUI** The Contractor confirms that ***end-users'*** GUI shall be in Norwegian. This includes field-labels, button-texts, menu-items, error messages and other texts.	H	3	N/A	DC	C
G25900	**Technical users' GUI** The Contractor confirms that the GUI for ***technical-users*** shall be in Norwegian or English. This includes field-labels, button-texts, menu-items, error messages and other texts.	H	3	N/A	DC	C
G25901	**Translation Process for GUI** The Contractor shall in T Appendix 2A1 describe how the Contractor will translate the GUI, when applicable, based on the language requirements. This shall include a description of how they will involve the Customer in the translation process when this implies translation into Norwegian.	H	2	D	DC	C
G25902	**Norwegian language in free text fields** The Contractor confirms that the solution shall handle Norwegian	H	3	N/A	DC	C

No.	Requirement	Imp	ToF	D	Doc	ToReq
	language in all free text fields.					
G25903	**Free text languages** The Contractor shall in T Appendix 2A1 describe which free text languages are managed in the solution.	M	3	D	DC	C
G25904	**"Bokmål" spell check in free text input** The Contractor confirms that Norwegian "Bokmål" spell check is available in all free text fields.	H	3	N/A	DC	C
G25906	**Translation in free text fields** The Contractor shall in T Appendix 2A1 describe if the solution has any translation functions in the free text fields.	L	3	D	DC	C

2.4 SUPPORT LANGUAGE

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
G25907	**Support language** The Contractor confirms that all communication with the Customer (verbal and written) regarding errors and support shall be in Norwegian or English.	H	2	N/A	DC	C
G25908	**Error message linked to Contractor's error code** The Contractor shall in T Appendix 2A1 describe how the Norwegian error messages are linked to the Contractor's original error code/ message. This is to prevent misunderstandings and errors when the Customer contacts the Contractor about the error message.	M	3	D	DC	C

2.5 TRAINING LANGUAGE

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
G25909	**Training language** The Contractor confirms that training performed by the Contractor shall be in English or in Norwegian.	H	2	N/A	DC	C
G25910	**Translation of E-learning courses** The Contractor shall in in T Appendix 2A1 describe how e-learning courses intended for *end-users* of Helseplattformen can be translated into Norwegian.	M	2	D	DC	C

3   DOCUMENTATION

This Chapter contains requirements for documentation of the offered solution. This includes standard documentation for the solution, and documentation that has been developed or customised especially for the Customer.

The Chapter is divided into three sections:

1. General documentation requirements

2. Delivery of documentation

3. Description of delivered documentation

In addition to the requirements in this Chapter, there are elements related to documentation in:

- *Chapter 2*

- Language

- *T Appendix 1D Training*

- *T Appendix 5 Administrative provisions*

The Customer expects documentation that provides knowledge and makes the Customer able to effectively use, operate and maintain the solution. The documentation should be easy to use and understand, and always be updated according to changes and new deliveries.

3.1 GENERAL DOCUMENTATION REQUIREMENTS

This Chapter contains general requirements for the documentation to be delivered. This includes requirements concerning format, document rights and how the Customer will be able to access the documentation.

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
G25927	**Document library** The Contractor shall in T Appendix 2A1 describe how all delivered documentation will be made available in a Customer library.	M	3	D	DC	C
G25928	**Documentation integrated in the solution** The Contractor shall in T Appendix 2A1 describe how the solution can facilitate *end-user* documentation being directly available in the solution.	M	2	D	DC	C
G25918	**Editing and restricted editing format** The Contractor confirms that the relevant documentation shall be available for the Customer in both editing and restricted editing format.	L	2	N/A	DC	C
G25924	**Customer's third parties rights to access relevant documentation** The Contractor confirms that the Customer's third parties have the right to access relevant documentation to perform their duties accurately and efficiently.	M	2	N/A	DC	C

3.2 DELIVERY OF DOCUMENTATION

The Customer expects a document delivery process that ensures that the Customer, upon deliveries from the Contractor, has all documentation required to operate and manage the solution. The Customer expects an easy and predictable handover of documentation.

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
G25930	**Documentation and quality assurance** The Contractor shall in T Appendix 2A1 describe the Contractor's	L	2	D	DC	C

No.	Requirement	Imp	ToF	D	Doc	ToReq
	process for quality review and assurance before delivery of documentation to the Customer.					
G25931	**Customer involvement when preparing customised documentation** The Contractor shall in T Appendix 2A1 describe how the Contractor will involve the Customer in the process of preparation of documentation customised especially for the Customer.	M	2	D	DC	C
G25933	**Documentation as part of deliveries** The Contractor confirms that a delivery is not to be considered complete until associated documentation is delivered and accepted by the Customer.	H	2	N/A	DC	C
G25935	**Documentation approved before considered as finally delivered** The Contractor confirms that the documentation provided by the Contractor shall be approved by the Customer before the documentation is considered as finally delivered.	H	2	N/A	DC	C
G25936	**Documentation of changes in the solution** The Contractor confirms that any updates of or changes to the solution shall be documented to keep documentation up to date and relevant.	H	3	N/A	DC	C

3.3 DESCRIPTION OF DELIVERED DOCUMENTATION

The purpose of this Chapter is to get an overview and a description of all relevant documentation that is to be delivered in relation to the offered solution.

The Customer expects:

- User documentation that ensures efficient training and use of the solution. The Customer may use the user documentation delivered by the Contractor as a basis for creating training material customised for local processes and/or different user groups.

- Operation documentation to ensure correct and continuous operation of the solution.

- System documentation that ensures efficient maintenance of the system with high quality and low risk.

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
G25938	**Documentation delivered** The Contractor shall in T Appendix 2A1 describe the documentation that will be delivered in relation to the offered solution in order to fulfil the Customer's expectation outlined in the introduction. The description shall include: - Description of the specific content of each document - Information about what documents that are standard documentation and what documents that will be customised for the offered solution	M	2	D	DC	C

4 CONFIGURATION

This Chapter contains requirements related to configuration of the offered solution, and the technical configuration, in order to meet the requirements listed in *T Appendix 1A, 1B, 1C* and *1D*.

The Customer expects that the Customer's requirements shall be met mainly through the Contractor's standard solution and configuration of this solution. The solution is expected to include initial clinical and administrative content. Need for adjustment of this content, prior to implementation should be described. Initial technical configuration should also be described.

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
G25942	**Initial clinical and administrative content** The Contractor shall in T Appendix 2A1 describe the clinical and administrative content (e.g., archetypes, business rules, clinical knowledge, treatment plans and templates) that will initially be included in the solution.	H	3	D	DC	C
G25943	**Configuration of clinical and administrative content** The Contractor shall in T Appendix 2A1 describe the configuration activities the Customer should conduct in order to adjust clinical and administrative content (e.g., archetypes, business rules, clinical knowledge, treatment plans and templates) prior to implementation of the solution.	H	3	D	DC	C
G25891	**Initial technical configuration** The Contractor shall in T Appendix 2A1 describe initial technical configuration, hardware and software, which is required for the Customer in order to meet requirements related to the offered solution.	H	2	D	DC;DT	C

5 SOLUTION FLEXIBILITY

This Chapter contains requirements regarding the flexibility of the offered solution. This includes possibilities for configuration to meet the need for changes in i.e., organisation, processes and technical platform. In addition, this includes requirements regarding the Contractor's future development of the solution.

The solution will be in use for many years, and the Customer expects a solution that can easily be adjusted to meet new requirements. The Customer expects a solution that will constantly evolve and stay up to date.

5.1 CUSTOMER'S POSSIBILITY TO CONFIGURE THE SOLUTION

This Chapter contains requirements regarding the Customer's possibility for configuration of the solution in order to meet future changes in organisation, processes, or technical environments etc.

The Customer expects a solution that has various possibilities for configuration. The configuration should be intuitive to conduct, and the possibilities be distributed to the lowest possible level. The user should be able to manage services and resources that are within their responsibility. As an example, a person with responsibility and authorisation for changing a process, shall themselves be able to execute the process change. This to ensure an effective and secure process when changes are required.

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
G26001	**Configuration possibilities according to responsibility** The Contractor shall in T Appendix 2A1 describe how configuration possibilities can be distributed to the lowest possible level to make the user able to manage for example services and resources that are within their responsibility.	H	3	D	DC	C
G26002	**Configuration possibilities and configuration tools for end users** The Contractor shall in T Appendix 2A1 describe configuration possibilities and configuration tools/interfaces that will be available for *end-users* of the solution based on the description of user groups in cf. *Chapter 2*.	H	3	D	DC	C
G26003	**Configuration possibilities and configuration tools for administrators** The Contractor shall in T Appendix 2A1 describe configuration possibilities and configuration tools/interfaces that will be available for administrators of the solution based on the description of user groups in cf. *Chapter 2*.	H	3	D	DC	C
G26004	**Configuration possibilities and configuration tools for technical users** The Contractor shall in T Appendix 2A1 describe configuration possibilities and configuration tools/interfaces that will be available for *technical users* of the solution based on the description of user groups in cf. *Chapter 2*.	H	3	D	DC	C
G26005	**Configuration that requires Contractor's contribution** The Contractor shall in T Appendix 2A1 describe configuration that requires contribution from the Contractor.	H	3	D	I	C

No.	Requirement	Imp	ToF	D	Doc	ToReq
G26006	**Purpose and expectations regarding usability** The Contractor shall in T Appendix 2A1 describe how the different configuration tools and interfaces conform to Customer's expectations regarding usability cf. *T Appendix 1B, Chapter 4.2*.	H	3	D	DC	C
G26007	**Supported process for changing configuration data** The Contractor shall in T Appendix 2A1 describe the supported process for changing configuration data, e.g., support for change/redefinition of data elements, sandbox test, and process for maintenance and approval of new configurable elements.	H	3	D	DC	C

5.2 CONTRACTOR'S DEVELOPMENT PLANS

The Customer expects the final solution to be in use for many years, and the Contractor to be a partner in the development of the regional health services in many years to come. The Customer expects a solution that continuously evolves and is updated according to the latest developments and research within the EHR field. In this regard, it is important that the Contractor continually works with strategies and ideas for how the solution will evolve to constantly stay current and updated. It is also expected that the Contractor invests in research and development as well as focusing on benefit realisation. This Chapter focuses on the Contractor's development plans for the offered solution, development strategies, future proofing and Customer contribution to development.

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
G26008	**Development roadmap** The Contractor shall in T Appendix 2A1 describe the current development plans ("Road map") for the solution for the next five years both in terms of functionality and architecture/technology. Features described shall be divided into two categories: 1) Dated 2) Not dated The Contractor may include examples and other material related to development roadmaps when responding to this requirement.	M	2	D	DC; I	C
G25881	**Future-proof and provident solution** The Contractor shall in T Appendix 2A1 describe how the Contractor works with strategies, ideas and development of the solution to keep the solution up to date.	H	3	D	DC	C
G25882	**Development and research update** The Contractor shall in T Appendix 2A1 describe how the Contractor stays updated on the latest developments and research within the EHR field and market (e.g., participation in forums and associations).	H	2	D	DC	C
G26010	**Customers contribution to development** The Contractor shall in T Appendix 2A1 describe how customers will be involved in defining the development plan / "roadmap" for the offered solution and how the customers will be able to influence these plans.	M	2	D	DC	C

No.	Requirement	Imp	ToF	D	Doc	ToReq
G26009	**Historical versions of the solution** The Contractor shall in T Appendix 2A1 describe and present an overview of the past 5 years' software upgrades/versions.	L	2	D	DC	C

6 INFORMATION SHARING AND DATA MIGRATION

6.1 SHARING OF INFORMATION DURING THE TRANSITION PERIOD

This section focuses on the challenges related to sharing of information during the transition period from the current EHR systems to the new solution. One of the main challenges of Helseplattformen Main Project is expected to be the transition period.

The new EHR solution will be implemented in phases and the current EHR systems will operate simultaneously with the new EHR solution. Furthermore, the new EHR solution will replace several current EHR systems. Data managed by replaced EHR systems may be partly migrated. The remaining non-migrated data should still be accessible from the new EHR solution.

The Customer shall continuously provide health services in the region, also during the transition period in Helseplattformen Main Project. It is not acceptable with any adverse events with effects on patient treatment as a consequence of the implementation of the new solution. Negative effects on daily, operational health services shall be kept to an absolute minimum. Ongoing patient treatment shall have necessary information available. To ensure that the population has safe, effective and equal health services, good interaction between the actors is essential.

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No.	Requirement	Imp	ToF	D	Doc	ToReq
G25779	**Access to data maintained by current EHR systems** The Contractor shall in T Appendix 2A1 describe how information maintained by the current EHR systems, continuously will be available in the new EHR solution. This includes health history, as well as plans for future care.	H	2	D	A;DC	C
G25780	**Access to data maintained by the new EHR solution** The Contractor shall in T Appendix 2A1 describe how information maintained in the new EHR solution, continuously will be available in the current EHR systems.	H	2	D	A;DC	C
G25774	**Access to non-migrated data retained from replaced EHR systems** The new EHR solution will replace several current EHR systems. Data managed by replaced EHR systems may be partly migrated. The remaining non-migrated data should be accessible from the new EHR solution. The Contractor shall in T Appendix 2A1 describe how the new EHR solution is able to render non-migrated data.	H	3	D	DC;I	C

No.	Requirement	Imp	ToF	D	Doc	ToReq
G25954	**Reporting options during the transition period** The Contractor shall in T Appendix 2A1 describe how reporting can still be done timely and correct during the transition (both the reporting for reimbursement, internal-, external- and other regulatory reporting).	H	2	D	DC	C
G26430	**Solution interoperability** The Customer's organisation and services continuously evolves. The offered solution is expected to support Customer's life cycle management, where interoperability is considered advantageous. The Contractor shall in T Appendix 2A1 describe how the offered solution solves interoperability within the transition period. The description should include an overview of the modules and/or naturally coherent services (solution interoperability) as well as a description of how interoperability with other systems is can be solved.	H	2	D	DC	C
G25955	**Ensuring information sharing between hospitals during the transition period** The Contractor shall in T Appendix 2A1 describe how hospitals implementing the new solution can still be able to share information with the hospitals in the old systems. This is to avoid that hospitals in the new solution get less information than today.	H	3	D	DC	H
G25781	**Preserving user availability during migration to new EHR solution** The Contractor shall in T Appendix 2A1 describe how the solution's availability is preserved for users already using the new EHR solution while new units are migrated.	H	3	D	A;DC	C
G25953	**Data migration with minimal impact or disruption** The Contractor shall in T Appendix 2A1 describe how data migration shall be implemented with minimal impact or disruption on patient care and in a way that ensures patient safety.	H	2	D	DC	C

6.2 DATA MIGRATION

In this Chapter, the Contractor is asked to describe the data migration methodology, how to retain the data integrity during the migration, how to log the migration tasks performed and how to make non-migrated data accessible.

For data migration the following principles apply:

- Health information shall at a minimum be retained for the patient's life and ten (10) years after death, in accordance with applicable legislation.

- Cost / benefit assessments shall govern the extent of the data migration.

- The data migration shall be synchronised with the deployment of the solution.

- The data migration shall be implemented in a way that ensures patient safety.

- The data migration shall be implemented with minimal impact or disruption on the systems that support core health tasks (assessment, diagnosis, treatment and care).

- The data migration shall be solved through a coordinated collaboration between the Customer and Contractor, and with the necessary involvement of the suppliers of the Customer's current IT systems.

- The Contractor is asked to describe how patient data will be available during the transition period cf. Helseplattformen Main Project.

- How will information entered into the new solution be available to organisations that are still using their existing EHR system?

- How will information entered into the existing EHR system be available to organisations using the new solution?

The principals set out for Helseplattformen Main Project shall also be applied for transitions based on options.

The Customer is focused on migrating data from existing **EHR** systems in a safe and compliant manner. Data must be migrated in compliance with regulations and existing patient health records must be retained to be able to continue a secure and competent patient care.

The description shall cover both the technical and organisational aspects to get an idea of what challenges the migration and cleansing process will impose. It is also of interest to gain an understanding of any demands that the Contractor deems necessary with regards to the responsibility for the conversion process.

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
G25767	**Migration tools and methods** The Contractor shall in T Appendix 2A1 describe the methods and tools being used to migrate data from existing EHR systems, before and while the solution is implemented and in use.	H	3	D	A;DC	C
G25768	**Data cleansing tools and methods** The Contractor shall in T Appendix 2A1 describe the methods and tools being used to clean data from existing EHR systems, before it can be migrated into the solution.	H	3	D	A;DC	C
G25769	**Migration requirements and constraints** The Contractor shall in T Appendix 2A1 describe the generic requirements and constraints for quality of data to migrate.	H	3	D	DC;I	C
G25770	**Previous migration experience** The Contractor shall in T Appendix 2A1 describe previous relevant migration projects. Information regarding scope assessments, complexity, actual time spent migrating data, amount of data migrated and risks are of special interest.	H	3	D	A;DC	C
G25771	**Responsibility matrix** The Contractor shall in T Appendix 2A1 describe a recommended responsibility matrix for data cleansing and migration. This responsibility matrix shall also be reflected in *T Appendix 3*.	H	3	D	DC;I	C

No.	Requirement	Imp	ToF	D	Doc	ToReq
G25772	**Migration of multiple identifiers** The Customer will migrate multiple EHR systems. The Contractor shall in T Appendix 2A1 describe how identifiers from multiple EHR systems are migrated to avoid possible conflicts.	H	3	D	A;DC	C
G25773	**Retaining data integrity with non-migrated systems** The Customer might retain systems integrated with current EHR systems. If they are not being replaced by the new EHR solution, then they have to be integrated. The Contractor shall in T Appendix 2A1 describe how the new EHR solution will retain data integrity with such systems.	H	3	D	A;DC	C
G25775	**Data handling during migration** The Contractor shall in T Appendix 2A1 describe the handling of sensitive data during data cleansing and migration, and how deletion of temporary data is ensured.	H	3	D	A;DC	C
G25776	**Migration logging** The Contractor confirms that all events during migration of data are logged, so it's possible to verify the outcome of the migration process. Please describe any deviation in T Appendix 2A1.	H	3	DX	DC	C
G25777	**Test migrations** The Contractor confirms that test migrations are performed on a location decided by the Customer. Please describe any deviation in T Appendix 2A1.	H	3	DX	DC	C
G25778	**Tagging of migrated data** The Contractor shall in T Appendix 2A1 describe how migrated data is tagged.	H	3	D	A;DC	C

7 OPTIONS

This Chapter describes Options for different services and functionality the Customer may buy and use during the Delivery Contract.

7.1 OPTION: OTHER CONSULTANCY SERVICES (PROBABILITY: HIGH)

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
G25976	**Option 1 - General roles and services (non-exclusive)** The Contractor shall upon request from the Customer provide consulting services for tasks that the Customer is responsible for during Helseplattformen Main project or as a part of implementing Customer options. The total volume is estimated to be 190.000 hours. The Customer will Call Off this Option based on the Customer's needs. The volume estimate, roles/services and Call Off mechanisms will be	L	4	D	DC	C

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No.	Requirement	Imp	ToF	D	Doc	ToReq
	detailed as a part of the dialogue. These services may include the following roles and/or services: - Project management / programme management - Test and test management - Configuration consultants - Integration/interfaces - Data migration - Master data management (data cleansing/cleaning) - Infrastructure/installation - Training - Change management The Contractor shall in T Appendix 7 describe how they are able to provide these kind of roles/services. The description should include a description of the Contractor's different consultancy/competency levels within the different roles/services. The Contractor shall assume that the different roles/services shall have the same level of competency as the resources offered in Helseplattformen Main project.					

7.2 OPTION: SPELL CHECK (PROBABILITY: HIGH)

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
G25905	**Option 2 - "Nynorsk" spell check in free text fields** The Contractor shall in T Appendix 7 describe how the solution can provide "nynorsk" spell check in free text fields.	M	4	D	DC	C

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