

Prior Information Notice

PACS Reprovisioning Programme

V1.0 14/12/2020



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1 Procedural Details

1.1 Timescales

This exercise has been issued on behalf of NHS Scotland in order to help evaluate sourcing options for a national clinical solution. The programme is working to a tight deadline and as such, we are requesting responses, at latest, 12 noon on Friday 22 January 2021.

1.2 Contact Details

All responses should be submitted to Jim Binnie at jim.binnie@nhs.scot

All questions should be submitted via the Question and Answer facility attached to the PIN notice on the Public Contract Scotland portal.

The programme will be unable to respond to supplier's queries over the festive holiday period from 24 December 2020 to 05 January 2021.

1.3 Questions for Suppliers

Suppliers are requested to complete the relevant questions contained in Section 3, 4 and 5.

1.4 Confidentiality

This exercise is focusing on market capability and price as a whole, rather than the merits of individual suppliers. It includes no element of supplier selection or bid evaluation and responses will not prejudice any future procurement exercise.

Whilst the intellectual property rights of the response to this exercise will remain the property of the respondent, NHS Scotland shall have the right to copy, modify, and do anything necessary to all materials submitted by the respondents in connection with the exercise.

1.5 Disclaimer

As stated above this exercise is not a pre-qualification or tendering exercise. Detailed proposals or submissions are not required. Any questionnaire returned in response to this exercise does not constitute any contractual agreement between the respondent and NHS Scotland.

2 Introduction

2.1 Background

The Picture Archiving and Communication System (PACS) is a key clinical component in the delivery of care and diagnosis in NHSScotland. First installed in 2006, the same PACS system is used across the whole of the acute NHS in Scotland, with a second system in place for Breast Screening. Both systems are from the same supplier.

PACS has completely replaced the use of film for radiology imaging and is in widespread use across all acute hospital sites. Locally, PACS allows imaging to be accessed anywhere in the hospital without the need to manually transfer film, whilst also allowing concurrent viewing of the same image in multiple locations and manipulation of the image data for an individual session. The acute national PACS archive has advanced clinical care, providing clinicians with the full imaging history of a patient from any one of 15 NHS Boards in Scotland (14 territorial NHS Boards and NHS Golden Jubilee National Hospital) and is now relied upon by clinicians in every part of the hospital. PACS is used by approximately 40,000 users in Scotland.

Cross-boundary radiology reporting also exists using a Soliton platform, which allows better management of radiologists' time.

The current PACS landscape is complex and diverse. While PACS is supplied by a single supplier, there are multiple local configurations across NHSScotland. PACS currently stores approximately 45 million studies and is accessed on local NHS Board machines with differing PC builds across the NHSScotland estate. The current PACS service last underwent a technical refresh between 2018 / 2021.

2.2 Main Areas of Interest

Whilst the main objective is to maintain service sustainability, there are a number of additional PACS features which we are considering and want to explore further.

We are interested in a PACS service which benefits from a roadmap to meet the evolving needs of the NHS in Scotland. For example, in areas such as Artificial Intelligence and how it will be adopted within a PACS environment and a flexible approach to PACS based radiology reporting (local and national approach).

Scotland operates with a number of local Radiology Information System (RIS) instances and the PACS will need to be capable of managing feeds from several different RIS in real time.

We are also interested in functionality which allows us:

- To improve our management of storage capacity,
- To improve the delivery of imaging in wards and clinics and beyond,
- To improve the delivery of information to the patient,
- To explore and improve the capture and management of all image based data across all clinical specialties,
- To explore the possibilities in the management of enterprise storage for future scales and purposes,

- To analyse the data stored in the system,
- To store data in a non-proprietary format.

This market testing exercise is a form of due diligence, to help us find out what is available in the marketplace which in turn will assist us in identifying options to be considered in the business case for reprourement and, if appropriate, a subsequent procurement for a solution(s).

The solutions we are interested in need to be commercially available product(s), already in use (or be capable of) providing a service to a population of comparable size to Scotland - a population of 5.45m.

2.3 Purpose

NHSScotland is exploring the options for the improvement or replacement of the existing Picture Archive and Communication System (PACS).

The objective of this exercise is to obtain up-to-date information and feedback from the marketplace in order to:

- understand market capabilities and solutions in relation to the functionality required; and
- provide NHSScotland with indicative costs associated with the implementation and ongoing support of a suitable solution(s).

The information to be provided will help us better understand the market and consider the way forward. Views and suggestions will not be disclosed to third parties or used for any other purpose.

This exercise is being carried out in advance of any formal procurement process. It is not a pre-qualification or tendering exercise. The results of this exercise will be used to inform NHSScotland's decision making process in respect of the implementation of a clinical solution and may or may not result in a future tendering exercise.

Any submission received in response to this exercise does not constitute any contractual agreement between the respondent and NHSScotland. Respondents should also note that NHSScotland will not be responsible for any costs and expenses that may be incurred in responding to this exercise.

3 Company Information

Please provide information about your company and product by completing the proforma below.

| | |
|------------------------------|-----------|
| Company name: | |
| Business nature: | |
| Address: | |
| Product Name and Version: | |
| Contact person: | Position: |
| Telephone no: | Email: |

4 Requirements

This section highlights the high level requirements and features that a solution could provide. Please indicate if each requirement is part of your product and give a brief response as to what is provided as part of your offering. Please also respond to the specific question included with each requirement, marked "Provide".

| Question Ref | Questions | |
|--------------|---|----------|
| | PACS Solution | Response |
| 1 | The solution(s) must be a commercially available product(s). Provide: Details of commercial licence/contract/service definitions for PACS and compliance with DICOM / HL7 Standards. | |
| 2 | Provide: A description of the method of storing and updating non-DICOM imaging and demographic updates to such data | |
| 3 | The solution must already be in use (or be capable of) providing a service to a population of comparable size to Scotland (5.45 Million pop 3.8 Million studies per annum). Provide: A list of installations that includes the country/region, number of patients managed, number of studies per year and an explanation of how the solution will scale to NHSScotland's requirement for PACS. | |
| 4 | The solution must be capable of sharing meta and pixel data in real time across all of Scotland's acute Health Boards Provide: A description of the architecture that could be used to provide this functionality | |
| 5 | Provide: a technical overview of the key components of the solution. Please also Describe any modular options for your solution indicating which of the following can be supplied: <ul style="list-style-type: none"> • Zero Footprint Client • Business Analytics • MDT • Dose monitoring • Patient Portal • PACS Based Reporting • Peer Review • Any additional Functionality (Please State) | |

| Question Ref | Questions | |
|--------------|---|----------|
| | PACS Solution | Response |
| 6 | Provide details of your understanding of the term Vendor Neutral in relation to the PACS solution. | |
| 7 | <p>Provide evidence of the range of functionalities on offer</p> <p>For Example:</p> <ul style="list-style-type: none"> • 2D, 3D, 4D reconstruction • Auto-registration • lesion management tools • cardiology tools • mammography tools • PET/CT • Ortho templating etc. <p>This a non-exhaustive list of features, please provide an overview of any additional features of the PACS solution</p> | |
| 8 | Provide evidence or commentary on secure PACS data transfer/sharing between different PACS systems and vendors. | |
| 9 | Provide evidence of an operational voice recognition solution in PACS Reporting and licensing model. | |
| 10 | <p>Provide evidence, the solution is capable of handling multiple RIS demographic feeds simultaneously from each of our RIS vendors (Carestream, HSS, Soliton and TrakCare).</p> <p>Describe how RIS updates from multiple unique sources would affect the records stored in PACS and detail any exemplar sites where the PACS product has been integrated with these RIS suppliers.</p> | |
| | Commercial | |
| 11 | Provide an indicative pricing model for licensing and state if a concurrent licence model is used. Please also indicate any alternate Licensing models you utilise commercially. | |
| 12 | <p>Offer a choice of delivery models, including hosting by a third party and cloud solutions.</p> <p>Provide: A description of the delivery models available for the solution for PACS and options around Public and Private Cloud</p> | |
| 13 | Provide commentary on offerings available to avoid mass DICOM migrations which could protect current storage investments and not risk costly migrations | |

| Question Ref | Questions | |
|--------------|---|----------|
| | PACS Solution | Response |
| 14 | Provide commentary on what your suggested approach would be to the >45+ million Philips RICE file format image data set, including associated timescales. Please provide evidence of this. | |
| 15 | Provide a description of models for storage of data and indicative pricing structures. For example: <ul style="list-style-type: none"> • Software as a Service • Platform as a Service • Managed Technical Service | |
| | Strategy | |
| 16 | Provide a roadmap for the PACS application, including future features and timeline | |
| 17 | Provide roadmap/commercial model for Artificial Intelligence within the PACS application | |

5 Indicative Costs

5.1 Costing Assumptions

- Prices should be at a December 2020 price base;
- Prices should be expressed excluding VAT;
- The current working assumption is that contract(s) would be let for a period of 120 months in the first instance;
- Indicative total costs for implementation and support should be provided as well as day rates; and
- While you will not be held accountable for the prices, NHSScotland is keen to get a realistic representation of costs so please provide prudent pricing information based on the information provided and your past experience.

5.2 National License (s) Table

| Price Item | One off | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Year 7 | Year 8 | Year 9 | Year 10 | Assumptions |
|---|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|-------------|
| Software Licence – National perpetual licence | | | | | | | | | | | | |

Other Costs

| Price Item | One off | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Year 7 | Year 8 | Year 9 | Year 10 | Assumptions |
|--|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|-------------|
| 1) Implementation | | | | | | | | | | | | |
| Project Management | | | | | | | | | | | | |
| Configuration | | | | | | | | | | | | |
| Software Development | | | | | | | | | | | | |
| Implementation Support | | | | | | | | | | | | |
| Design | | | | | | | | | | | | |
| Integration/Interface Development (e.g. cost per unique interface) | | | | | | | | | | | | |
| Training | | | | | | | | | | | | |
| Testing | | | | | | | | | | | | |
| Other (specify) | | | | | | | | | | | | |
| 2) Support | | | | | | | | | | | | |
| General Support | | | | | | | | | | | | |
| Hosting | | | | | | | | | | | | |
| Other (specify) | | | | | | | | | | | | |
| 3. Additional Services | | | | | | | | | | | | |
| Training (day rate) | | | | | | | | | | | | |
| Project management (day rate) | | | | | | | | | | | | |
| Consultancy (day rate) | | | | | | | | | | | | |
| Other (specify) | | | | | | | | | | | | |

