Expression of Interest – Image sharing project

Proposal due by	COB Friday 7th February 2020

Section 1 – Introduction

BreastScreen Victoria (BSV) is a government-funded program providing free breast cancer screening and assessment services across the state.

BSV actively invites potential clients between the ages of 50 to 74 years to attend screening. BSV screens over 260,000 women every year, and increases screening by approximately 3% annually. BreastScreen is part of the BreastScreen Australia program which is governed by National Accreditation Standards (NAS) for service delivery and performance.

BreastScreen Victoria sub-contracts 42 screening sites and 8 Reading and Assessment Services (RAS) to deliver clinical services. The program also operates two mobile screening services (MSS) which travel to rural areas on a two-yearly cycle to improve access to screening.

The BreastScreen Coordination Unit (BCU) administers the program including a Contact Centre, a centralised mail room, Client Communications and Recruitment, oversight for Accreditation and Quality, and enabling services such as Information Technology and Corporate Services (Finance, Human Resources, Contract Management).

To support screening, reading and assessment BSV operates a central client information system (Gecko) and a Picture Archiving Communications System (PACS). These systems are designed to support multiple processes including:

- Sharing client images and information collected by BSV with clinicians outside the program; and
- Requesting and uploading prior images and information from clinicians outside the program.

These processes do not meet client and clinician needs due to their largely manual, non-responsive and increasingly complex nature. To provide high quality client care, within and outside the program, BSV is seeking a system to efficiently and securely transfer images between BSV and the client's healthcare provider(s)[1].

This engagement aims to assess the market and solutions available to improve the systems and process to share images and information for clients and their health care provider(s).

The project is aligned to the BSV strategic goal of designing quality services with clients and the BSV IT strategic priority to provide digital solutions to enhance the client experience. For further information on BSV and IT strategies refer to Appendix 1.

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[1] A healthcare provider is defined as an individual or organisation that is involved in or associated with healthcare delivery at a hospital, imaging practice or specialised breast clinic across the public and private sector. For the purposes of this project this can include GP's, Radiologists, Surgeons, Breast Physicians, Oncologists and other clinicians

Section 2– General Information

Engagement Overview	
Purpose of the engagement	To understand the market and solutions available to deliver on the project aim and objectives

Business requirements	BSV aims to improve the systems and process to share images and information for clients and their health care provider(s).
	
	BSV is seeking a system that:
	
	• Streamlines the image and information sharing process between BSV and health care providers to:
	   o reduce the number of touchpoints for clients, health care providers (external) and BSV staff;
	   o reduce the time taken to share images and information including out of hours access to images;
	   o support matching personal details and selection of appropriate images;
	   o streamline the consent process for clients;
	• Enables the health care providers (with client consent) to access and view low and high resolution images and information immediately or by downloading images to a local PACS;
	• Manages or supports the client consent process to ensure BSV meets legislative and contractual requirements;
	• Enables BSV to:
	   o authenticate and maintain a list of health care providers accessing the system; and
	   o track and monitor requests for images including delays
	• Meets BSV non-functional requirements including
	   o compliance with Australian Signals Directorate Essential Eight and National Institute of Standards in Technology (NIST) frameworks and guidelines for cyber security; and
	   o Integration (via DICOM and HL7) with each health care providers' PACS.

Challenges	The existing system does not meet client, health service provider or BSV needs including: • Multiple touchpoints (clients, health care providers and BSV staff) and channels (email, phone, fax, on-line booking) used to enable image sharing; • Delays accessing images due to resourcing and system issues; • Multiple manual and semi-automated processes and systems to share images across the health provider sector; • Images shared are not always required or relevant. Additionally, BSV is seeking a system to meet legislative and contractual obligations including consent, privacy, security and records management requirements.
Engagement objectives	To identify an efficient and secure image and information sharing system between BSV and the client's health care provider(s). The objectives of the system include: 1. To streamline the process for clients to consent and advise BSV (i) where to access previous diagnostic and screening images and results; and (ii) where to release their screening images and information

	2. To streamline the process for health care providers to (i) transfer previous diagnostic and screening images and results to BSV; and (ii) access BSV images and information
	3. To provide health care providers with both quick access to images and access to high resolution images for reporting comparison purposes.
	4. To provide health care providers with access to BSV information including screening and assessment results
	5. To meet BSV legislative and contractual requirements including consent, privacy, security and records management.

Engagement Details	
Proposed deliverables	Vendors are invited to submit a high level proposal to deliver on the project aims and objectives including product(s) delivered; milestones; resources; costs and contributions for BSV
Proposed engagement schedule	10 Jan 2020 EOI released to market 31 Jan 2020 EOI closes Feb 2020 Vendor responses evaluated in consultation with Advisory group comprised of internal and external system user representatives (may include request for Vendors to present proposal) Mar 2020 Preferred Vendors(s) selected to present proposal to Advisory group Apr 2020 Business case to Board of Management May 2020 Contract signed & project commences
Detailed project requirements	Refer to Appendix 2 for functional and non-functional requirements.
Attachments	Appendix 1: BSV strategic plan 2018-2022 and BSV IT strategy 2018-2022 Appendix 2: Functional and non-functional requirements Note: Further information on BSV image infrastructure and network topology is available on request.

Section 3 – Evaluation Criteria

The following criteria will be used for the evaluation of quotes and determination of the successful bidder.

Evaluation Criteria	Importance of Criterion

1. The bidder demonstrates an understanding of the:
    a. Deliverables
    b. Objectives
    c. Requirements
	Highly Important
	(weighting 3)

2. The bidder demonstrates an understanding of the challenges and has a strategy to address these	Highly Important (weighting 3)
3. The bidder demonstrates relevant and adequate experience. Experience in the health sector (in particular imaging or breast screening) and an understanding of the	Highly Important (weighting 3)

	approach to complying with the legislative environment and security requirements will be considered favorably.	
4.	The bidder will be available for the duration of the timeframe required for this project	Important (weighting 2)
5.	The bidder demonstrates their ability to deliver outcomes of the project as specified in the requirements in Appendix 2	Highly Important (weighting 3)
6.	Value for money	Important (weighting 2)

The following evaluation score and weighting are to be used when evaluating quotes.

Evaluation	Score
Exceeds all aspects of the selection/evaluation criterion	4
Exceeds some aspects of selection/evaluation criterion (and meets all other aspects of the selection/evaluation criterion)	3
Meets all selection/evaluation criterion	2
Fails some aspects of the selection/evaluation criterion	1
Fails all aspects of the selection/evaluation criterion	0

Section 4 – Response

The response to the EOI should include detail regarding:
- Trading name of organisation
- Full legal name
- Postal address
- Type of entity
- Country of residence
- Contact details of key contact
- Response to the project requirements, including details of proposed engagement, scope, cost/price schedule, risks to and challenges of the engagement.
- Detail on the capability of the organisation and key project staff
- Referees, including contact details

Should you have any queries relating to any aspects of this RFQ and for submission of final response, please contact:

Name	George Stark – Development Manager
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APPENDIX 1

BSV Strategic Plan 2018-2022

Empowering clients
To make informed decisions about breast cancer

Our Purpose
At BreastScreen Victoria we save lives by providing screening and being a trusted source of information on breast cancer.

We will assist eligible Victorians to make informed decisions about their approach to the early detection of breast cancer.

While BreastScreen Victoria is an inclusive program, we target our breast screening services to Victorian women aged 50-74.

Our Goals

Client Centric	Sustainability	Partnerships	Digital Focus	Future ready
Designing quality services with clients	**Maintaining a sustainable future**	**Building partnerships to improve our service**	**Utilising new technology and digital processes.**	**Creating opportunities to advance our services**
• All clients have the best possible experience	• Embed continual improvement into practice	• Boost engagement through a strong client and community focus	• Optimise how we connect with clients, providers and health partners	• Advance our contributions to breast cancer research and screening approaches
• Achieve equitable access and high participation for all communities	• Transform our workforce to meet client needs	• Collaborate with health partners and government to drive policy and efficiency improvement	• Invest in a contemporary digital environment to be at the forefront of care	• Advocate for the introduction of risk based screening
• Partner with clients to achieve quality systems and robust clinical governance	• Maintain strong financial stewardship	• Build corporate relationships to raise participation and awareness		• Adapt our services to reflect emerging health trends, legislation and social change
	• Achieve national accreditation for all services			
	• Invest in our infrastructure			

Our Values

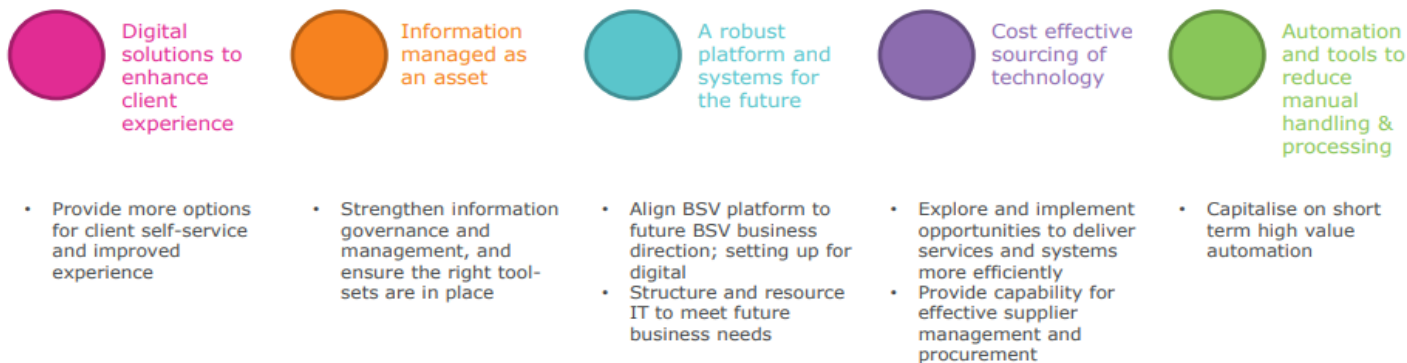| Women's health is our primary focus	We are innovative and creative	We pursue excellence	We make best use of resources	We work with our partners to achieve our mission	We are forthright and accountable

Strategic Plan 2018-2022

BSV IT Strategy 2018-2022

Horizon 1 - 2018/20
Actions to assure the technology platform for future growth

Our priorities

	Digital solutions to enhance client experience	Information managed as an asset	A robust platform and systems for the future	Cost effective sourcing of technology	Automation and tools to reduce manual handling & processing
	• Provide more options for client self-service and improved experience	• Strengthen information governance and management, and ensure the right tool-sets are in place	• Align BSV platform to future BSV business direction; setting up for digital • Structure and resource IT to meet future business needs	• Explore and implement opportunities to deliver services and systems more efficiently • Provide capability for effective supplier management and procurement	• Capitalise on short term high value automation

Our principles

User centred design – for clients, for clinicians, for service delivery	Enable open access to information whilst ensuring integrity, quality and security	Best practice – identified and applied in program context	Security – information and systems are accessible and protected	Trial and implement – start small, apply learnings, deploy	Best value – people, processes, systems	Focus on bespoke technology and outsource where appropriate

BreastScreen Victoria IT strategy 2018-2022

Issued 19 Feb 2019

APPENDIX 2 – Functional and Non-functional requirements

Functional Requirements

Category	ID	Description	Mandatory/Optional
Automation	1.1	BSV needs to automatically request prior images from a health care provider (external) when the client books their appointment so that prior images are available to hang for reading on the day after screening.	M
	1.2	As a client, I want to reduce the number of touchpoints when providing information about images taken with another health care provider.	M
	1.3	As a client, I want to be prompted on where I may have had images taken with another health care provider.	M
	1.4	As a BSV client facing team member[2] who may be contacted by clients or clinicians to access images and information, I want to reduce the number of touchpoints when obtaining information to share images a health care provider.	M
	1.5	As a health care provider (external) I want to reduce the number of touchpoints when sharing information and images with BSV.	M
	1.6	As a BSV Data Manager[3], I want to reduce the number of touch points when hanging prior images.	O
	1.7	As a BSV Data Manager, I want to reduce the number of manual requests and follow-up for prior images.	M
	1.8	As a BSV Data Manager I want the system to automatically export requested images from PACS so I can reduce manual handling time & effort.	O
Manage Client Consent	2.1	As a client, I want to reduce the number of touchpoints when providing consent for BSV to access and release my prior images.	M

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[2] For the purpose of this EOI, BSV client facing team members can include a Contact centre agent or Service delivery team member at BCU, or a Receptionist or Data team member at a RAS

[3] BSV Data Managers are located at each of the eight RAS locations and are responsible for collection and monitoring of client data and records. They are also hold primary responsible for the transfer of images and data between BSV and health care providers.

Category	ID	Description	Mandatory /Optional
	2.2	As a provider of imaging services (BSV or external health care provider) requesting or providing images, we want to attach proof of client consent, or make a declaration that client consent was obtained to share images.	M
	2.3	BSV wants to ensure that images and information are provided with client consent to ensure legislative compliance	M
Request Validation & Verification	3.1	BSV wants to check whether a client has ever screened or undergone diagnostic imaging with a nominated external health care provider before requesting images.	O
	3.2	As an external health care provider I want to check whether my patient has ever screened with BSV and when they last screened before requesting images.	O
	3.3	As a provider of imaging services (BSV or external health care provider) requesting images we want to share the correct images at the correct time limiting images shared by date (within a certain time from screening) and examination type (breast related).	M
Image & Information Transfer Management	4.1	As a provider of imaging services (BSV or external health care provider) I want to verify and select data and images for import to PACS including: • Verification of client details (matching); • Assigning relevant metadata (eg round and examination type, Accession ID).	M
	4.2	BSV wants to authenticate health care providers against a validated list prior to exchanging images.	M
Input & Output Options	5.1	As a BSV Data Manager, I want to be able to use this system to share images when the client or health care provider requires or provides images on CD/DVD/USB or film.	O
	5.2	As a health care provider I want to be able to share BSV images with another health care provider to seek a second opinion or perform a procedure.	O

Category	ID	Description	Mandatory /Optional
	5.3	As a health care provider, I want to view images via an application viewer (low/high resolution) so I don't have to wait for the images to download/load into PACS, before viewing them and can access outside business hours.	O
Tracking, Monitoring & Oversight	6.1	As a client, I want to know when BSV has been unable to access my prior images.	M
	6.2	As a BSV client facing team member who may be required to obtain client images, I want to know the status of BSV request for prior images so I can respond to client enquiries.	M
	6.3	As a BSV Radiologist, I want to know when images have been requested and not provided, to determine whether to continue reading and/or assessment visit without prior images .	M
	6.4	As BCU technical support, I want to know the status and progress of client priors centrally at BCU so we can monitor image and information transfer performance and issues.	M
	6.5	As a BSV Data Manager, I want to know the status and progress of (outbound) requests so that I can monitor and follow-up any outstanding requests.	M
	6.6	As a BSV Data Clerk who may be required to obtain client images, I want to know the status of (inbound) requests so that I can follow-up any outstanding requests received.	M
	6.7	As a Gecko user, I want to view all requests to share images and information in the client record (Gecko) so that I can quickly and easily answer questions about a client's image sharing history.	M

Non-functional Requirements

Category	Requirement	ID	Description	Mandatory /Optional
Security	Secure authentication	1.1	System is secured with relevant UserID / Passwords to control access to the system.	M
		1.2	System can integrate with identity providers such as Active directory to provide for single sign on capabilities.	O
		1.3	System provides for role based security to secure specific functionality or data. Roles can be configured and maintained.	M
		1.4	System can maintain rules to enforce password complexity requirements	M
		1.5	System utilises two factor authentication for additional security	M
	Data Encryption	1.6	Data transmitted using the system is fully encrypted for security purposes	M
	Cyber Security	1.7	Solution compiles with the ASD essential eight and NIST cyber security frameworks and guidelines	M
Image Storage	Image Retrieval / Storage locations	2.1	System can be set up to store / retrieve images from multiple PACS archives.	M
		2.2	System can import / export images via standard DICOM interfaces.	M
Network	Bandwidth	3.1	System makes efficient use of network bandwidth to make the best use of private and shared networks	M
		3.2	System can utilise compression to lower network traffic impacts	O

Category	Requirement	ID	Description	Mandatory /Optional
Compatibility	Desktop O/S	4.1	Solution should be desktop platform agnostic. The primary user interface should be browser based supporting all major browsers (Chrome, Firefox, IE, Edge, and Safari).	M
	Mobile	4.2	Solution should be accessible to all mobile devices (IOS/Android). Tablet and phones.	M
	Server O/S	4.3	On premise solution should be compatible with Windows server 2016 and above. Mark as N/A if you are proposing a cloud based solution.	M
	Cloud	4.4	The solution can be a cloud hosted solution which would render the server O/S requirement not applicable.	O
Performance	Responsiveness	5.1	System load times should not exceed 5 seconds	M
		5.2	The system screens should be responsive with system commands returning control to the user within 2 seconds.	M
Integration	PACS	6.1	Solution should support integration to Sectra PACS and other providers via standard DICOM interface.	M
	API	6.2	System should provide API's to facilitate application level integration for 3rd party systems.	M
		6.3	API library should be documented and a test harness should be provided to facilitate test access.	M
Support and Maintenance	Training	7.1	Training should be available as required. Training should be in the form of end user training and administrative back end training.	M
	Service	7.2	Access to product support and maintenance services should be available	M

Category	Requirement	ID	Description	Mandatory /Optional
Compliance		8.1	Solution should comply with legislation, standards and guidelines that apply to BSV including privacy legislation, BSA National Accreditation Standards (16 Jan 2019) and contractual requirements including NIST compliance	M