

eProgesa

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1. Review and approval

This document must be reviewed and approved by the identified individuals (Subject Matter Expert, System Owner, QA). Approval will be captured using the QPulse approval process.

Name	Job Title	Signature	Date
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1.1. Document Purpose

This document, written to meet GAMP5 guidelines, will provide a system description of eProgesa and will describe the principles, objectives, security measures and scope to the system, how the system is be used and interactions with other computer systems and procedures.

1.2. Documents Review Timescales

This document will be reviewed on a regular basis and no less than once every 2 years.

Review of this document is required when a system change / project is instigated through the change control process.

2. Overview

2.1. Overview

SNBTS is the strategic business unit of National Services Scotland (NSS) responsible for the provision of blood components, bone and tissues, and a range of associated specialist laboratory and patient therapeutic services to hospitals in Scotland. SNBTS is a national organisation managed and controlled by internal and operational management groups governed by the NSS Executive Management Team and the NSS Board.

eProgesa is a national IT system that supports all the donor administration, blood collection, processing and testing activities involved within in the Supply Chain Directorate of SNBTS. eProgesa stores donor, component and product details and is based on modern relational database and server technologies

eProgesa is specifically designed to support the supply chain activities of a first-world Blood Service and is based on n-tier architecture.

eProgesa is utilised for donor administration and blood collection activities in:

- Forresterhill (Aberdeen)
- Ninewells Hospital (Dundee)
- Lauriston Place (Edinburgh)
- The Jack Copland Centre (Edinburgh)
- Atheneum (Glasgow)
- Gartnavel General Hospital (Glasgow)
- Raigmore Hospital (Inverness)

eProgesa is utilised for processing, testing and distribution activities in The Jack Copland Centre (Edinburgh) and Gartnavel General Hospital (Glasgow).

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eProgesa is also utilised at offline blood collection sites throughout Scotland.

2.2. Scope & Main Features of the System

Users are supported by PCs and dedicated printers, including specialist label and standard laser printers. Users access the application remotely using a standard Java Client installation on each PC.

eProgesa has four bi-directional interfaces:

- with Traceline, the SNBTS Patient Management System
- with Proteus, a generic laboratory test result interface engine which connects the donor testing analysers to eProgesa
- · with eProgesa mobile session servers to allow collection of blood at off line sites
- with Donor Web Portal, the appointment booking system for donors

eProgesa has 4 uni-directional interfaces:

- with Transform application to produce specific printouts i.e. Donor Communications
- with Tissue Trace 2 to allow the import of specific donor deferral details
- with 3rd party company Stralfors to allow the generation of donor cards
- with the Account for Donation data mart which allows the provision of information to the SNBTS Business Intelligence / Management Information team

3. System Description

3.1. System Description

eProgesa has its own dedicated servers that are housed in industry-standard commercial datacentres that are equipped and maintained to a high specification. The datacentres incorporate many industry facilities that provide monitoring for flood, fire and intruder detection, fire suppression, cabling and power redundancy.

Pulsant (previously known as Scolocate) and ATOS datacentres were visited and audited by SNBTS in June 2006.

They are also subject to routine auditing by the ATOS contracted audit firm (Scott Moncrieff). Further details on these datacentres including the availability that their respective capabilities support may be found in the National ATOS / NHS contract.

eProgesa runs over the existing standard NSS network and communications infrastructure. The sites are all connected into both datacentres over the mainstream (NHS) communications networks (Healthnet and SWAN). The two datacentres are connected by a dedicated fast communications link (100 Mbit).

In all the sites the eProgesa communication is run over standard local networks that use industry standard hardware technology including switches and routers and in the main CAT5 or CAT6 standard cabling.

The eProgesa solution utilised by SNBTS also includes a mobile version of the eProgesa application and database which is installed on encrypted laptops that are housed in purpose built containers and secured by SNBTS Donor Services Collection Team. The data held on the mobile servers is downloaded to eProgesa and updated from eProgesa manually via USB or ethernet methodology.



eProgesa

3.2. Backup and Restore

eProgesa is backed up using industry standard procedures and tools - it is a backup of all system data.

There are 3 levels of backup:

- Standby database mirror of active database with a 15-minute lag. Transaction logs can be manually applied to bring standby database up to real time, if required. The standby database is housed on separate servers within the designated disaster recovery datacentre
- 2. Network copy of Active database 12 hours behind active database. The network copy is held on the file system of the live servers
- 3. Off-site tape backup 24 hours behind active database The time limit for the ability to restore from tape backup is 1 month.

There are daily integrity checks conducted on the backups utilising industry standard tools and procedures.

3.3. Infrastructure Topography

SNBTS uses n-tier architecture and the details are captured within the Configuration Management Database (CMDB) used by NSS IT.

A configuration management database (**CMDB**) is a database that contains all relevant information about the hardware and software components used in an organization's IT services and the relationships between those components.

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4. System Components

4.1. Access

eProgesa is accessed via a locally installed Java Client onto the fully qualified domain name (FQDN) eplive.blood.scot.nhs.uk

At mobile collection sessions the mobile version of eProgesa is accessed using a client laptop connected to the mobile server laptop using an encrypted local wireless network

4.2. eProgesa Application

eProgesa is developed by MAK-System and is used by a number of blood services internationally.

eProgesa is parameterised, configured and maintained by NSS IT.

eProgesa is a GAMP Category 4 software package that has been developed / parameterised to meet the requirements of SNBTS.

4.3. System Security

SOPHOS is the anti-virus software in use across NSS.

User access is controlled via processes that are managed through the SNBTS QMS.

5. Interfaces

5.1. Bi-Directional Interfaces

 $\underline{\text{Traceline}}$ – for stock orders, stock transfer, donation recalls and quarantining between eProgesa and Traceline

<u>Proteus</u> – for the receiving of sample results from analyser to eProgesa and for the sending of raw result files to Irish Blood Transfusion Service (IBTS)

<u>Mobile Server Laptops</u> – for the blood collection at offline mobile sites. The data held on the mobile servers is downloaded to eProgesa and updated from eProgesa manually via USB or ethernet methodology.

<u>Donor Web Portal</u> – to allow donors with an account to book eProgesa blood collection session appointments

5.2. Uni-Directional Interfaces

<u>Transform</u> – for the generation of specific printouts i.e. Donor Communications

Tissue Trace 2 – to allow the import of specific donor deferral details

<u>Stralfors</u> – for the generation of donor cards

<u>Account for Donation</u> – allows the provision of all eProgesa information to the SNBTS Business Intelligence / Management Information team

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Date: Refer to QPulse

5.3. Peripheral devices connected to eProgesa

 $\underline{Printers}$ – such as laser and MDF printers and specialist zebra printers for the printing of labels with barcodes

<u>Analysers</u> – the analysers that are configured to communicate with eProgesa via Proteus include:

- Abbott Olympus and PK7300
- Abbott PRISM
- Abbott Architect
- Roche NAT 6300
- Grifols NAT
- Dynex DS2
- BacT/View Data Manager
- BacT/Alert Observa Data Manager
- BioRad IH1000

Barcode Readers / Scanners

For a list of validated barcode readers / scanners please refer to NATS ITS 024 'Configuration and Validation of Barcode Scanners'

Weighing Scales

6. Glossary

GAMP	Good Automated Manufacturing Practice
LIMS	Laboratory Information Management System
NSS	National Services Scotland
QMS	Quality Management System
SNBTS	Scottish National Blood Transfusion Service

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