Welsh Clinical Portal
Test Strategy

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1 EXECUTIVE SUMMARY

The Test Strategy document encompasses the testing approach for the Welsh Clinical Portal. It is sufficiently adaptable to cover emergency small scale and defect fixes releases and large scale functionality releases.

Summary of the Welsh Clinical Portal Testing Life Cycle

Testing will be carried out to verify that the system functions according to the business requirements. A complete functional test of the application must be performed in the Product Integration Test Environment (PIT) (formally known as Generic SIT). A Regression/Sanity Test will be carried out in the LHB local environment to ensure that the systems which it integrates with in the Local Health Board (LHB) test environment are integrated successfully

Note: It may be necessary to test WCP in the LHB Test Environment if PIT is not available or a change is made to the WCP specific to that environment.

Test Phases will be carried out during Test Life Cycle.

Unit Testing – Unit testing is a process by which the smallest testable parts of a system, called units or components, are individually and independently validated to ensure they are working correctly before the units are combined into a working programme. This will be conducted by WCP Development Team.

Smoke Testing - will be conducted to ensure the test system i.e. LIMS, Telepath, eMPI, WCP, TRRR are connected correctly to one another this will be carried out by the Technical Implementation Managers.

System Testing & Integration Testing - will focus on the functionality of an application and to fully test the integration between the components. This will be conducted by the NWIS Test Team

Sanity Testing - This will be performed to ensure that the build is in a stable state prior to System and Integration or full Regression Testing. This will be conducted either by the WCP Support Team or the NWIS Test Team

Regression Testing – This will be performed to ensure every release has not introduced new defects into the existing functionality and to test systems integrates into the LHB test environments successfully. This will be conducted by the NWIS Test Team

UAT Testing – Once handover is complete and the entry criteria into UAT have been met all UAT testing will be completed by LHB local testers in accordance with the UAT Test Plan

Validation Testing – This will be completed by LHB Local Testers in accordance with the UAT Test Plan

During the life cycle the WCP Test Lead will ensure that test preparation, Test Readiness Review, Test Plan, and Test Scripts are completed and signed off.

During Test Execution stage the WCP Test Lead will ensure Test Progress including daily and Test Summary reports as well as Test Completion reports are documented and distributed as outlined in the NWIS WCP Test Plan.

WCP Test Lead will outline any resource requirements to WCP Project to ensure test delivery or highlight resource issues which may affect test deadlines.

2 INTRODUCTION

2.1 Project Background

The Welsh Clinical Portal allows healthcare staff intra-organisational information sharing and better integration of services. The Welsh Clinical Portal provides secure, private web pages that will give healthcare staff a common way of accessing the varied systems that are used to support patient care in hospital and a single view of information held across different electronic systems.

2.2 Document Purpose

The main purpose of this Test Strategy document is to:

- To define the overall context for the entire testing process within the project
- To provide a “big picture” view of the project’s approach to testing
- To describe how different testing efforts are integrated
- To provide an overview of the strategy for progressing from one test phase to the next
- To provide an overview of the strategy for progressing from test to live environments

2.3 Related Documents

The following table highlights those documents that were referred to in the preparation of this test strategy:

Document Name	Version	Author(s)
NWIS Test Strategy Template	211211	Rob Murray
NWIS Test Framework Template	1.3	Rob Murray
NWIS Test Plan Template	20120105	Rob Murray
NWIS Test Script Template	V 3	Maynard Davies
NWIS Test Summary Report Template	20110929	Dhan Patil

2.4 Glossary

The glossary below is provided to ensure phrases, expressions and acronyms used throughout this document are understood by the reader. In addition, it is intended to establish agreed definitions of various terms so all project participants have a common understanding of the testing related terminology to be used throughout the Welsh Clinical Portal project.

Term/Acronym	Definition
SAD	Systems Architecture Document
SRS	System Requirement Specification
LHB	Local Health Board
SIT	System and Integration Testing
WCP	Welsh Clinical Portal
UAT	User Acceptance Testing
NWIS	NHS Wales Informatics Service
TFS	Microsoft Team Foundation Server
PAS	Patient Administration System
TDM	Test Data Matrix
IDC	International Data Centre
TRRR	Test Requests and Results Reporting
Black Box	Is a testing method that tests the functionality of an application as opposed to its internal structures or workings
LIMS	Laboratory Information Management System
PIT	Product Integration Test Environment
NRDS	National Reference Data Set
WPH	Welsh Pathology Handbook
InSe	Infrastructure Services
TFS	Team Foundation Server

3 TEST RISKS/ASSUMPTIONS

3.1 Project Related Risks

The Welsh Clinical Portal Risk Register contains the high-level risks that have been identified throughout the course of the project including project, system and clinical related risks. The Risk Register is updated throughout the course of the project and as such, this strategy document may need to be updated and reapproved to maintain alignment with identified risks.

This information will be used by the test team when generating the test plans to determine:

- Test focus areas
- Priority of testing effort
- Test effort required

3.2 Test Related Risks

The following high-level testing risks, as detailed within the table below, have been identified. These risks will be mitigated through the testing effort throughout the project. It is foreseen that this list will need to be updated as more information becomes available. Additionally, each individual Test Plan will contain more detail around the testing risks relevant to each test phase.

The table contains the following fields:

- Risk – provides details of the identified risk e.g. “test environment does not adequately replicate the production environment”
- Consequences – details the consequences if the adverse event identified as a risk was to occur e.g. “environment issues may not be discovered until the system is deployed onto the live systems”
- Current Mitigation – the current practice(s) that are in place to mitigate the identified risk
- Current Risk[1] – this identifies the level of the risk if no further mitigation was put in place. Scores are provided for the following:
    - Consequence
    - Likelihood
    - Risk
- Further mitigation – the testing or project activity that will be put in place to further mitigate the identified risk
- Future Risk[2] – this identifies the level of the risk if the further mitigation was put in place. Scores are provided for the following:
    - Consequence
    - Likelihood
    - Risk

[1] Refer to the NWIS Test Framework and the Clinical Risk Process for Scoring

[2] Refer to the NWIS Test Framework and the Clinical Risk Process for Scoring

Risk	Consequences	Current Mitigation	Current Risk			Further Mitigation	Future Risk		
			C	L	R		C	L	R
Inadequate Test Environment	SIT Testing will have limited value if testing isn't performed on an environment which is the same as the user environment with respect to integrated components.	WCP Lead/Manager will complete a Test Readiness Review (TRR).This should take place on a weekly basis starting 4 weeks from Test Execution commencing The purpose of this review is to ensure that the Project is on track and the final TRR should confirm that test execution is ready to start.			✓				
Inadequate Test Data	Testing will not be able to commence on time if all the test data is not available as specified in the Test Data Matrix	WCP Lead/Manager will review Test Data from WCP Test Team and LHBs to ensure Test Data is adequate before test execution start			✓				
No provisional date for testing to start	There may be clashes of testing resource with other work streams if the testing dates are not finalised.	WCP Lead/Manager to liaise with WCP Project to ensure Work Streams do not clash and there is adequate resource to complete testing within the agreed schedule			✓				

Training on LHB Test and PIT Telepath, Radis II and LIMS systems	If the WCP Test Team is not trained on the local test telepath system they will not be able to complete end to end testing	WCP Lead/Manager to ensure adequate training is given to members of the Test Team on all applications prior to test execution			✓				

Risk Ranking – C = Consequence, L = Likelihood, R = Risk

3.3 Assumptions

The following assumptions were made throughout the conception of this document:

- Scope of projects is pre-defined before testing commences.
- WCP Project will ensure any documentation delivered is up to date and accurate
- New builds will be unit tested satisfactorily prior to testing commencing
- Defects are fixed in reasonable time to re-test
- Builds are made available at the required frequency for testing resources to be used to maximum capacity
- Software development estimates need to be accurate to give accurate testing estimates
- No system changes will be implemented into any of the test environments without prior approval from the Test Lead/Manager
- NADEX authentication has been fully tested and been signed off.
- If any other information held in any of the test instances has had information derived from a production system then all patient related details will be anonymised prior to commencing SIT.
- Testing will be conducted at WCP Test Team office in Brunel House.
- The Test Team will have access to all the test systems
- All Logins are set up with the appropriate privileges.
- The WCP Test Team will have access test PAS to view patient demographics.
- Test Environment replicates the production environment

4 TEST OVERVIEW

4.1 Overall Approach

The testing execution approach will depend on the complexity of the functionality that has changed or been newly developed.

The WCP Lead/Manager and WCP Project will liaise on the functionality change to decide whether the release is major or minor.

Major Release

A major change or a major development should adhere to the NWIS framework and NWIS Test Strategy i.e. a Test Plan and a Test Readiness Review will be completed by WCP Test Lead/Manager. Test Cases and Scripts should be developed from SADs/SRS documents. Daily/Weekly Test Reports, Test Cycle and Test Completion Reports will be produced.

Test Plans produced must be signed off by WCP Project and is necessary LHB representatives.

Test Redness Review must be signed off by WCP Project\LHB representative prior to test execution

Test Completion Report must be signed off by WCP Project\LHB representative prior to handover.

To verify that the system functions according to the business requirements a full functional test of any new Portal functionality will be completed in the PIT environment if available. Where the environment is not available it may be necessary to execute testing in a LHB Test Environment. A full Regression Test should be completed to verify every major release has not introduced new defects into the existing functionality

A full Regression Test or Sanity Test will be carried out when deployed to LHB Test Environments.

Minor Release

Testing on a minor change or development will depend on the type of change introduced. It will be up the WCP Lead discretion on the amount and detail of documentation produced, although testing sign off must by documented with a Test Completion certificate

An analysis will be undertaken to determine the extent of test coverage of the Regression Test to be completed or if a Regression Test is necessary to verify the release has not introduced new defects into the existing functionality in PIT and Local LHB Environments

Emergency Release

Testing on an Emergency release will depend on the type of change introduced and time allocated to testing. It will be up the WCP Lead discretion on the amount and detail of documentation produced, although testing sign off must by documented with a Test Completion certificate

An analysis will be undertaken to determine the extent of test coverage of the Regression Test to be completed or if a Regression Test is necessary to verify the release has not introduced new defects into the existing functionality in PIT and Local LHB Environments.

4.2 Scope

The scope of the testing of a WCP release will vary according to the release and will be documented in the WCP Test Plan. The Test Plan will need to specifically state both in scope and out of scope items.

Testing Scope will include the areas/features of the Welsh Clinical Portal that will be tested.
The areas/features of the Welsh Clinical Portal that will be not be tested
Any peripheral equipment that will or will not be tested
Any interfaces or connected systems/applications that will/will not be tested.

4.2.1 In Scope

The test scope will change according to the new or changed functionality. This must be outlined in detail in the Test Plan.

4.2.2 Out of Scope

The test Out of Scope will change according to the new or changed functionality being tested. This must be outlined in detail in the Test Plan.

There is however items that are out of scope either because the Test Team does not have the testing capability i.e. Load Testing or other applications integrated into the test environment are tested by 3rd parties. These are listed below.

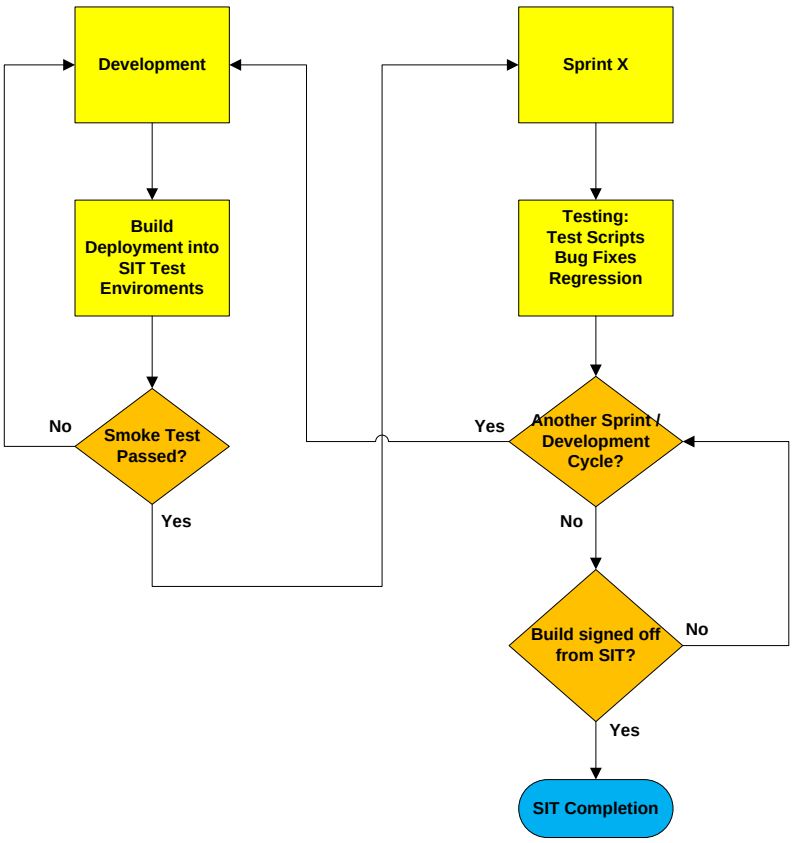
- Clinical Data Validation is out of scope
- Testing involving all specific data types will not be tested.
- Large volumes of data will not be used in testing
- Testing relating to security such as setting up firewalls will not be tested
- Programming code will not be tested
- Testing user journeys to ensure that they are user friendly will not be tested
- Hardware will not be tested
- Service Management related testing will not be carried out
- Performance Testing will not be carried out at this stage
- Functionality of Telepath systems will not be tested
- Functionality of the Welsh Pathology Handbook will not be tested
- Functionality of local Patient Administration System will not be tested

5 TEST STRATEGY

5.1 Test Phases

The following test phases will form part of the overall testing effort for the Welsh Clinical Portal project:

For a successful implementation of a software product, the following diagram outlines at a high level the test phases a product will pass through. These phases are then described in more detail **Error! Reference source not found.**.



Unit Testing – Unit Testing will be completed by the Development Team prior to any WCP builds are released in PIT or Local LHB Environments. Unit Testing is the process by which the smallest testable parts of a system, called units or components, are validated to ensure they are working correctly before the units are combined into a working programme.

Smoke Testing – Smoke Testing will be completed by the WCP Test Team. This is to ensure that systems and applications are correctly connected together. Smoke Testing will be completed in Test environment.

SIT Testing – SIT Testing will be executed by the NWIS Test Team. This will fully challenge the integration between components. Bug Fix Testing, Functional Testing, ad Hoc and Regression Testing will be completed at this stage.

UAT Testing – UAT Testing will be executed by local LHB Testers in accordance with the UAT Test Plan. These tests are designed by users and simulate the daily activities of users .There are usually two phases of UAT Testing either side of validation testing in the live environment but this can vary between LHBs. UAT will be signed off by the local LHB

Validation Testing – Validation Testing is executed in the live environment by local LHB Testers. This phase to testing is usually carried out after UAT. This will be signed off by the local Health Board.

5.2 Test Types

The following test types will be performed during the Welsh Clinical Portal project:

Unit Testing
System Testing
Integration Testing
Regression Testing
Ad hoc Testing
Non-Functional Testing
Validation Testing

5.3 Test Coverage

5.3.1 Test Phases/Test Types Matrix

The table below shows a diagrammatical explanation of the different stages of testing including the test types that should be performed.

Test Phases / **Test Types**	**Unit**	**Smoke**	**SIT**	**OAT**	**UAT**
Unit Testing	X				
Integration Testing		X	X		
Functional GUI Testing			X		
Interface Testing			X		
Non-Functional Testing			X		
Regression Testing			X		
Failover				X	
Backup/Restore				X	
Contract Acceptance					X

5.4 Test Entry/Exit Criteria

This section of the document outlines the conditions that are required to enter and exit each phase of testing.

The following criteria is applicable to all Test Phases

- The Welsh Clinical Portal Test Strategy is signed off
- A Defect Management process is defined and accepted
- Clinical experts are available for questions
- Technical Resources are available for support
- A requirements document has been completed and signed off

Phase	Entry Criteria	Exit Criteria
Unit Testing	▪ Design solution documents signed-off ▪ Technical Specification completed and approved ▪ Unit test plan/checklist has been prepared and viewed	▪ Unit test plan/checklist has been completed and signed-off ▪ Peer Review completed ▪ No Critical or High defects outstanding. ▪ All open defects have an owner and resolution timeframe agreed.
SIT Testing	▪ Requirements document available ▪ All Unit Testing Exit Criteria met ▪ SIT Test Plan completed, reviewed and signed off ▪ SIT Test Cases completed and reviewed ▪ Applications and hardware installed ▪ Test Data anonymised and loaded ▪ Any required tester Training completed ▪ Test Environment is ready to use and is a replica of the live environment ▪ All required resources have access to the applicable defect management tool ▪ Support process in place	▪ All Mandatory and Expected Test Cases executed ▪ Majority of Desired test cases have been executed ▪ All Critical and High issues resolved ▪ All Medium and Low issues accepted and signed-off ▪ Test Phase Summary completed and signed off
Operational Acceptance Testing	▪ All SIT Exit Criteria met ▪ Operational resources available	▪ All Mandatory and Expected Test Cases executed ▪ Majority of Desired test cases have been executed ▪ All Critical and High issues resolved ▪ All Medium and Low issues accepted and signed-off ▪ Test Phase Summary completed and signed off
User Acceptance Testing	▪ All Technical Acceptance Testing Exit Criteria met if applicable ▪ All System Testing Exit Criteria met if applicable ▪ UAT Test Cases completed	All Mandatory and Expected test cases have been executed ▪ Majority of Desired test cases have been executed ▪ All Critical and High issues resolved

Phase	Entry Criteria	Exit Criteria
	▪ Any required User Training completed ▪ Clinical Users assigned and available ▪ Test data is anonymised and loaded ▪ UAT Environment is set up and ready to use ▪ Support process in place	▪ All Medium and Low issues accepted and signed-off ▪ Test Phase Summary report completed and signed off. ▪ Project Test Summary report signed off ▪ Validation Testing meets exit criteria

6 TEST MANAGEMENT

6.1 Test Deliverables

The following documents will be delivered by the testing initiative that forms part of the WCP project. The table aims to outline all test documentation that will be generated.

Document	Description	Frequency[3]
Project Test Strategy	This document. The document covers the overall Testing Strategy, who is involved and what activities will be implemented to ensure the quality outcome is achieved.	One off prior to the commencement of testing
SIT Test Plan	The SIT Test Plan details which testing will be performed and how the testing will be performed during SIT phase	Each revision
Test Scripts	The Test scripts detail the testing per function to test and are broken down into steps to execute and log into the test scripts	Each revision
Test Readiness Review Checklist	This is a list of all activities required to take place before testing starts. Regular reviews should take place starting 4 weeks before testing due to commence. Final approval of this checklist will provide the gateway to enter test Execution.	Weekly from 4 weeks prior to Test Execution starting
Test Progress/Summary Report	This a report at the end of each build which details testing progress, gives summary of defects, test scripts run and general testing issues encountered	At the end of testing every new build
Test Completion Report	The Test Completion Report is produced at the end of SIT and details the summary of testing conducted.	Once
Test Certificate	A Test Certificate is produced when testing has been completed on a minor or emergency release	Once

[3] Specify how often the document will be distributed. For instance: One-off at the end of testing, monthly, weekly, daily

6.1.1 Test Case Classification

The WCP project will involve a range of test cases designed to verify and validate the deliverable. It is recognised, however, that due to project and testing time constraints, there may arise the need to eliminate some tests to allow each project to complete within the allocated time frame. To this end, each test case will be assigned a priority classification and executed based on that priority order.

The Test Case Classification for the WCP project is shown in the table below.

Classification	Acceptable Test Results	Description
Mandatory	Test must pass.	These test cases must pass to exit the test phase. The test case represents a clinical or project critical functionality. Stakeholders should review and approve these test cases and results.
Expected	Test should pass. If test does not pass, acceptable workaround must exist	These test cases must be run to exit the test phase. If the test does not pass, a decision must be made as to whether acceptable workarounds exist. Stakeholders should review and approve these test cases. Approval must be received for workaround if the test fails.
Desired	Run if time permits. Can pass or fail.	These test cases are optional for execution if a time constraint exists

6.2 Test Communications

6.2.1 Test Reporting

There will be 3 types of reports produced during the test phase as follows:

- Daily Test Report / Conference Call (If required)

  This Report will contain an update of:
  - Number of overall test cases
  - Percentage of test cases completed
  - Percentage of test cases passed or failed
  - Percentage of test cases re-executed
  - Number of outstanding defects
  - Percentage of defects resolved

- End of Test Cycle Report

  This report will contain:
  - Number of overall test cases
  - Percentage of test cases completed
  - Percentage of test cases passed or failed
  - Percentage of test cases re-executed
  - Number of outstanding defects
  - Percentage of defects resolved

- Test Completion Report:

  This report will contain:
  - Testing Overview
  - Objectives of Testing
  - Reference Material
  - Recommendation from Testing
  - Scope In/Out
  - Defect Matrix
  - Entry and Exit Criteria
  - Signoff
  - Known Issues

6.2.2 Test Metrics

Metrics, or “standards of measurement”, are used to gauge the effectiveness and efficiency of the testing activity within a project. In this section outline the test metrics that will be distributed and how reporting of these metrics will be managed. Metrics could include:

- Number of overall test cases
- Percentage of test cases completed
- Percentage of test cases passed or failed
- Percentage of test cases re-executed
- Number of outstanding defects
- Percentage of defects resolved

6.3 Defect Management

6.3.1 Defect Progression

All defects must be logged into Team Foundation Server (TFS). These defects will be triaged by NWIS WCP Development Team Manager.

WCP Lead/Manager will liaise with WCP Development Team Manager and WCP Project to rectify TFS logged calls to seek a resolution.

6.3.2 Acceptance Levels

As a minimum level of acceptance, zero Critical or High defects will be accepted at the point of all test phase exits and a limit will be set on the number of open Medium and Low defects that will be allowed.

A more detailed look at defect acceptance level for each test phase will be provided in individual test plans.

6.3.3 Defect Severity/Priority

Severity Code	Severity Levels	Description
1	**Severe**	Would have a critical, negative impact on the business if released into production e.g. loss of service availability or security breach of confidential information. No acceptable functional workaround
2	**Significant**	Would have a critical, negative impact on the business if released into production and must therefore be corrected before live implementation. For functional problems, an acceptable workaround exists.
3	**Moderate/Low**	The system has failed to meet user requirements but will not have a critical, negative impact on business if the system goes live before the fault is corrected
4	**Minor/None**	The system has failed to meet user requirements but will only have a very minor impact on the business if the system goes live before the fault is corrected.

6.3.4 Defect Resolution

Defect Resolution will depend on Welsh Clinical Portal delivery time scales and the severity of the defect. This can be agreed with WCP Test Lead/Manager Development Manager and WCP Project before Test execution start.

7 TEST RESOURCES

7.1 Roles

The WCP project will require the following resources to enable testing to progress and complete on time.

Role	Responsibility
WCP Test Lead	• SIT Test Plan • Test Data matrix • Validate Test Data • Provide Testing estimates • Co-ordinate Build deployment with the development team • Review Test Scripts • Manage test execution • Test Progress Report • Test Defect Report • Test Summary Report • SIT Closure Report • Escalate issues to project
WCP Test Analyst	• Develop Test Scripts • Execute Test Scripts • Defect Reporting • Maintain Test Issue Log • Produce weekly Reports • Raise defects in defect tracking tool.
NWIS Environment Manager	• Set up of environment • Liaise with on environment issues • Smoke testing • Set up of usernames and passwords • Environment support
NWIS Project Manager	• Liaise with WCP Test Lead on plans • Escalation point for issues • Review test documentation
LHB Project Manager	• Be single point of contact for the • Coordinate the creation of Test Data • Ensure local systems are built, tested and available for use in the test environment • Manage resources for test prep and execution activities • Attend TRRs (may be teleconference)

7.1.1 Roles and Responsibilities

The following matrix identifies the groups involved in the various test activities of the WCP project and the responsibilities of each group.

R = Responsible
A = Assist

Role / Test Activity	*Development Team*	*NWIS Test Team*	*Project Team*	*Health Board*
Manage Testing		R	A	A
Generate SIT Test Plan		R		
Generate SIT Test Cases and Scripts		R		
Execute SIT	A	R		A
Test Data Preparation		A	A	R
Defect Reporting	A	R	A	A
Generate Test Completion Report		R		
UAT Test Plan			A	R
UAT Test Scripts			A	R
UAT Test Execution			A	R
UAT Validation Execution			A	R
UAT Test Completion Report			A	R

7.2 Test Environments

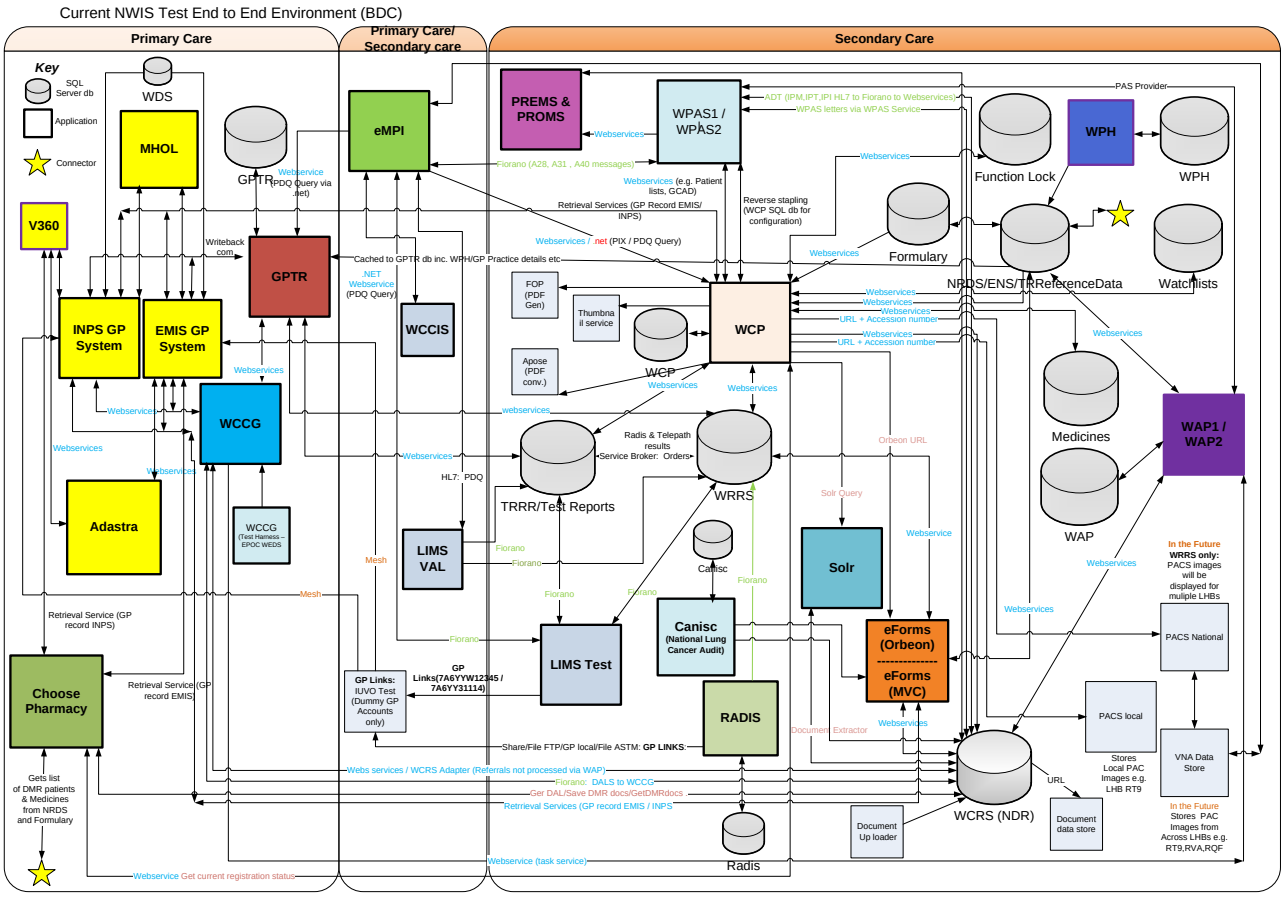
Dedicated, stable test environments are essential to the successful outcome of the testing phase of a project. “Dedicated” ensures that the environment changes only when expected by testers reducing the logging of false defects. “Dedicated” also ensures that test data remains clean and usable and once again, only changes when expected. Stability is also vital in that any unexpected environment downtime may severely impact testing times.

The following test environment is required for the WCP project:

PIT Environment

NWISPAS Database
Episode numbering services
TRRR Database and stored procedures
WCP Application and Database
NRDS
Welsh Pathology Handbook
eMPI
PIT Telepath
LIMS (Track)
InSe services
Radis 11
JCAPS
Note: LHB Test Environments may vary

High level diagram of PIT Environment



7.2.1 Environment Management Process

All factors that may affect the outcome of testing should be under the control of the test manager for the designated test period. This includes (but is not limited to) test applications, servers, databases and any other components utilised solely for test purposes. Any changes to be introduced into the test environment (whether a minor or major release[4]) should be undertaken as a formal release with release notes provided to the Test Manager prior to the deployment. Release notes should contain:

- Code Drop or Deployment Number
- Any new functionality included in the drop if applicable
- Any known issues identified and fixed through unit testing
- Any Defect Fixes - including the defect number - defect description and resolution
- The likely date and time the changes will be released into the test environment.

7.3 Test Data

A coherent set of test data that suitably mimics the scenarios under test is vital for a successful test phase. Test Data that accurately reflects real world scenarios ensures that tests are undertaken in an environment that replicates the live systems and information utilised by clinical users.

A Test Data Matrix (TDM) Excel spreadsheet containing test scenarios that have been identified by NWIS Test Team for Telepath or RADIS will be produced by NWIS Test Team. The local LHB will have to create patient in their test PAS system for each scenario if testing is to be carried out in their LHB Test Environment. The Test Team can then use the patients to execute test for the test scenarios identified.

This Test Data Matrix will vary according to the functionality that each LHB requires.

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[4] In principle, with software releases, the major number is increased when there are significant jumps in functionality, the minor number is increased only when minor features or fixes have been added

8 TEST TIMELINE

The test timeline in this test strategy is a high level look at test phases and dates. It is a key input to the early and pro-active scheduling of test resources (both physical and people).

This will change depending on resource levels and the complexity and size of the new or changed functionality in the WCP.

This must be completed in the Test Plan

Test Phase	Duration (days)	Effort (hours)	Proposed Phase Start Date	Proposed Phase End Date
Unit Test				
Integration Test				
Systems Integration Test				
User Acceptance Test				
Operational Acceptance Test				

9 HANDOVER TO PRODUCTION

9.1 Handover Strategy

The Testing Life Cycle for the WCP is to ensure that each deliverable within the WCP project is in a fit state to handover to Local Health Boards.

Handover to each local LHB will be based on

- Entry Criteria into UAT has been met
- WCP Project and LHB agree that handover can be completed
- Resources for installation testing agreed and in place.

9.2 Test Cases

Test cases completed by the Test Team will be stored in the Cyfran WCP Testing share point Site under LHB Implementation Documents

9.3 Outstanding Defects

The Test Summary and Test Completion Report must include known defects.
Where possible, steps to reproduce and supporting screen shots should be attached to the Test Completion Report document. This report will be handed to the WCP Project to distribute to Local LHB boards.

Note: Each LHB Board will have deployment Release notes from WCP Support Team

9.4 Test Progress/Summary Report

When to distribute summary reports can be detailed in the WCP Test Plan i.e. Weekly, Daily and will be agreed between Test Team Lead/Manager, WCP Project and LHB.

In the case of a minor build summary reports may not be necessary this will be agreed between Test Team Lead/Manager and WCP Project

The Test Summary Report will adhere to the Test Summary Report Template document.

10 SIGN OFF

Role	Position	Signature	Date
Test Manager	Test Manager	Rob Murray	04/09/2018