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E-BULK TEST REQUIREMENTS FOR REGISTERED BODIES



Disclosure &
Barring Service

E-BULK TEST REQUIREMENTS FOR REGISTERED BODIES

E-Bulk Interface

Version: 6.0

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E-BULK TEST REQUIREMENTS FOR REGISTERED BODIES

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1 Introduction

1.1 Background

The DBS has introduced a facility to enable applications for DBS Certificates to be bulk submitted electronically and to return information regarding the result of those applications by a similar means. This facility is known as the “E-Bulk” interface. The Registered Bodies (RBs) who meet the e-Bulk criteria will be invited to use the e-Bulk facilities. RBs who adopt e-Bulk will be referred to as E-RBs.

Use of the E-Bulk interface will alleviate the need for the production and mailing of paper forms by the E-RBs as well as form scanning and data keying by the DBS. It also makes it possible to reduce the volume of printed Certificates sent by post to the E-RBs.

1.2 Objectives

This document outlines the testing activities that prospective E-RBs are required to undertake to prove that their systems are fit to be connected to the production DBS system via the E-Bulk Interface. This document summarises:

- the three formal testing stages that RBs must go through;
- the scope of each stage of testing; and
- deliverables expected from testing.
- How the DBS will assist in the testing

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2 High Level View of Development Life-Cycle for the E-Bulk Interface

This section outlines the life-cycle expected to be followed by RBs for the development of the E-Bulk Interface.

2.1 Project Setup & Initiation

The RB reviews information on E-Bulk and registers, with DBS, its interest in E-Bulk and its commitment to implement E-Bulk.

DBS will review the RB's requests and will obtain mutual agreement to overall timescales for development, testing and implementation of an E-Bulk Interface. This is known as the Provisioning Phase.

2.2 E-Bulk Interface Development

During this phase, the prospective E-RB undertakes development of its interface for the E-Bulk service. Prospective E-RBs must review all of the following documents in detail to enable them to develop their E-Bulk Interface in compliance with DBS's requirements:

- Business Process Document [BPD]
- Business Message Specification [BMS]
- Message Integrity Specification [MIS] (Restricted)
- Interface Control Document [ICD]
- Message Delivery Interface documents [MDI]
- Interchange Agreement [IA]
- Code of Connection (GSI) [CCG] (Restricted when completed)
- Code of Connection (internet) [CCI] (Restricted when completed)
- E-Bulk-CJSE Onboarding Document [OBD]
- Supporting Compliance Document (for internet connections)
- E-Bulk Test Requirements for Registered Bodies

A brief summary of each of the above mentioned documents is provided in [Appendix A](#).

Most of the documents mentioned above are available through the Home Office website, (www.homeoffice.gov.uk). However any documents that have the restricted marking will not be made available on the web and instead can be obtained from the DBS by post or via a secure email facility, known as the CJSM email account.

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2.3 E-Bulk Testing

The testing activities that RBs must undertake with the DBS are the focus of this document. There are four distinct test phases that the RB must complete:

- Internal Test Evidence (a clean run through of an application)
- System Testing [STP]
- Connectivity Testing [CTP]; and
- Business Readiness Testing [BRTP].

The overall process, the expected activities, and the deliverables that will be part of each of these test phases are presented in section 3.

For each phase, the DBS will provide a test pack containing the tests that must be executed as well as supporting information. Each of the test packs [STP], [CTP] and [BRTP] (see [Appendix A](#) for detail of content) will be made available to the RB when they are about to commence the relevant test phase, after the RB has undergone successful completion of the internal test evidence phase. These test packs will be sent to the RB using secure email. This documentation has enabled all RB's to successfully implement the E-bulk interface and connection to DBS.

The overall RB project lifecycle is outlined below:

1. Prospective RB develops and unit tests its own E-Bulk interface.
2. RB conducts internal system testing and collects evidence to the extent that the RB believes its system is fit for purpose. The RB declares its readiness to undergo formal DBS system testing once it is satisfied with the robustness of its system.
3. A conference call between the RB and DBS takes place. A DBS test team analyst will be assigned to manage the test phase with the RB
4. The RB will provide DBS with documentary evidence to support its internal system testing results. DBS will examine this and if satisfactory grant authorisation for the RB to proceed to the next phase.
5. The allocated DBS test analyst will then issue the Registered Body with the system test pack, and also arranged a conference call.
6. RB undertakes formal DBS system testing, defined in [STP], to prove its system is compliant with the E-Bulk requirements. This testing will be referred to as 'Test Phase 1' in this document. Should testing fail at this stage the DBS at its discretion will prevent the RB from progressing through testing until a resolution is found and successfully tested.
7. Results of the DBS system testing are examined by the DBS test analyst and on the DBS's authorisation the RB proceeds to the next phase

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8. RB undertakes connectivity testing with the CJS Exchange defined in [CTP]. This testing will be referred to as 'Test Phase 2' in this document
9. DBS reviews the results of the RB's connectivity test and decides whether or not the RB's interface is suitable to be implemented in a live environment.
10. RB undertakes formal DBS business readiness testing, defined in [BRTP], before the RBs system has been rolled out into live. This testing will verify live connectivity on test data before any live applications are sent to DBS. This testing will be referred to as 'Test Phase 3' in this document.
11. Results of the business readiness testing are examined by the DBS and on the DBS's authorisation the RB may commence sending 'live' E-Bulk applications to DBS. Although highly unlikely, should testing fail at this stage the DBS at its discretion will prevent the RB from submitting live applications via the E-Bulk interface until a resolution is found and successfully tested.
12. DBS may also take a decision to prevent an RB from entering distinct phases of testing dependent of evidence to be provided.
13. Once an RB is deemed to be 'live', the Quality Management Team will quality check a defined number of applications.

2.4 Implementation

If the RB has successfully completed all formal testing phases and has received a formal accreditation from the DBS, then the RB may request to go live with its E-Bulk interface.

DBS will, in conjunction with the RB, identify a suitable go live date to ensure the RB receives adequate support throughout the implementation and go-live stages. The exact process to promote an accredited RB's system to production is out of scope for this document.

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3 E-Bulk Interface Testing Phases

This section details the formal testing stages that prospective E-RBs are required to go through. Test phases 1 and 2 detail what testing is required for the RBs system to be promoted into live. Test phase 3 details live testing each RB must perform before DBS will allow the RB to send live application.

DBS will provide RBs with a pack of documentation for each of the test phases:

- Internal Test Evidence
- System Testing Pack [STP]
- Connectivity Testing Pack [CTP]
- Business Readiness Testing Pack [BRTP]

A brief summary about each of the documents above other than ITE is provided in [Appendix A](#).

3.1 Test Phase 1 - System Testing

3.1.1 Objectives

The main objective of this phase of testing is stated below:

- From a DBS perspective, this phase of testing must prove that the RB's E-Bulk interface meets DBS's requirements as set out in the [BPD], [BMS], [MIS], [ICD], [MDI] Also, the system testing is expected to assure DBS that the risk of data loss or corruption by the RB's system is understood and minimised.

The RB may enjoy secondary benefits:

- From the RB perspective, the goal of this phase of testing is to provide additional assurances that its system provides the requisite functionality to submit, receive and process electronic application and response messages. Secondly, it is necessary to prove that the system is sufficiently robust when the unit tested components or sub-systems are integrated.

3.1.2 Overview

DBS will provide the RB with a System Test Pack [STP], which will consist of the following:

- System Test Plan;
- Test Scripts (including test conditions , test scenarios, test log and specified input data);
- Test Schedule;
- Test Exit Report template.

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The System Test Plan provides an overview of the testing and is compliant with [IEEE829]. It is generic for all RBs.

The Test Scripts detail test conditions that must be demonstrated during testing. These conditions are derived from the requirements implicit in [BPD], [BMS], [MIS], [ICD], [MDI], and [IA] documents.

The System Test Pack [STP] will not specify tests such as security, performance or reliability testing, or tests to exercise change internal to the RB's system and the DBS system. To test these and any other requirements that the RB's business may have is the responsibility of each RB itself.

DBS will not mandate or recommend any specific methodology. Any test evidence created using a test tool must comply with DBS business validation rules. The RB is at liberty to use whatever test tools it may find appropriate to implement the tests, for example to create larger volumes of applications with which to test.

It is the responsibility of the RB to ensure that the test activity is conducted in a suitable environment, to a satisfactory standard, and to produce the test documentation requested by the DBS.

3.1.3 References

In addition to the documentation listed in 2.2, RBs will have access to the following documents:

- System Test Pack [STP]

3.1.4 Process

This section summarises the process for undertaking system testing. Further details about this will be made available in System Test Pack [STP].

Before the RB can commence the formal DBS system testing described in this section, they must declare that their system is complete and has passed internal system testing. This is because the focus of the DBS system testing is not defect identification and resolution, rather it is to provide a minimum assurance to the DBS that the RB system is functionally correct as regards message generation and processing.

The RB will be responsible for extracting messages to file for processing by a facility that emulates the DBS's E-Bulk interface. This test facility may be a stand alone software utility or "test harness" that is provided to the RBs by the DBS or it may be a service that DBS offers whereby test XML files are emailed securely to the DBS and the resulting response XML messages are emailed back. Regardless of the exact mechanism for transfer, the principle is that RBs test messages will be processed by the DBS. The RB will be required to prove that their system has adhered to BMS, screen shot evidence will be provided to DBS to prove that the RB has tested to the necessary vigour/level

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The test facility will validate the filename based on the Interface Control Documents [ICD], the message integrity token according to the Message Integrity Specification [MIS] and the message structure/format and business rule compliance according to the Business Message Specification [BMS].

If the message is valid the test facility will create a number of CRB02, CRB03 and CRB04 messages based on the input message. The messages will emulate the range of possible success and failure messages detailed in the Business Message Specification [BMS]. The testers will then be able to select a message created by the test facility that is appropriate to the test case being executed.

Once the RB has declared successful completion of system testing and is satisfied that the system is fit to exit the test phase, the RB will complete the System Test Exit Report template, including any supporting evidence requested by the DBS, and submit this to the DBS test analyst for review and approval. The RB will also provide additional information such as all test incident reports and the test logs for each test case. Furthermore, the DBS will need access to the process information (copies of release notes or defect management processes) to ensure rigorous defect, release and configuration management procedures had been followed.

3.1.4.1 Test suspension criteria and resumption requirements

If the RB fails to produce CRB01 files test activities should be suspended. Other suspension criteria are at the discretion of the **DBS test manager**.

The DBS is unable to create specific resumption requirements since these will depend on the characteristics of the RB's system, and their regression test capability. The RB is at liberty to define resumption requirements on receipt of a new version of their application on the test environment. The resumption requirements defined by the RB must include regression testing of functionality already tested. The DBS will agree the proposed RB resumption criteria is acceptable.

3.1.4.2 Pass/fail criteria

All of the test scripts must have been attempted in order to exit system test. The impact of an incident/defect preventing completion of a test script should be risk assessed by the DBS test team to determine its criticality. The risk assessment should be based on the likelihood of encountering the defect in live operation and the functional impact of the defect. It will be the responsibility of the RB to resolve these issues. A retest will then need to be planned and agreed with the DBS.

A number of critical issue statements can be identified at this point. If any of the below issues are evident, they will be regarded as a net failure of system testing:

- Any test case that identifies data issues affecting the applicant information appearing in the CRB01 message, whether effectively filtering, transforming or otherwise modifying data.

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- Any test that indicates the RB system will impede the performance or operation of the DBS's system such that it will tangibly impact the service delivered by the DBS to any Registered Body e.g. generating massive CRB01 files or generating spurious CRB01 files.
- Any test case that cannot be executed fully and is estimated to impact on more than 1% of CRB01 messages, regardless of a manual work around.
- Any breach of security arrangements set out in the relevant CoCo for RBs and CJSE.

The aim will be to proceed and complete all remaining test cases if any of the above statements can be made as a result of information gathered during system testing. The decision to suspend or stop system testing is the responsibility of the DBS.

3.1.5 Assessment

On completion of system testing, the RB will send all the required information to the DBS who will review the system test documentation and will:

- Review the evidence of the testing the RB undertook prior to formal DBS system testing.
- Review a sample of the test logs to ensure there is adequate evidence that the test cases were executed and the planned coverage was achieved.
- Review the Test Exit Report and any test cases or data that were changed from those contained in [STP].
- Review a sample of the incident reports closed during the test activity.
- Review all incident reports that are open at the end of the test activity.
- Review a sample of any new test data that was produced.

To gain further assurance the DBS test manager may choose to request further evidence, including repeat tests to give DBS confidence of the suitability of the RB tests.

DBS will formally notify the RB whether or not the RB's system test has been deemed a success or a failure.

Those RBs whose interfaces fail system test may be allowed to resolve the defects in their interface/system and re-submit the required documentation for DBS's assessment. The decision to allow re-test/re-submission will be strictly at the DBS's discretion; the DBS will carefully analyse the results of system testing to determine suitability of a re-test. DBS may require the RB to repeat system testing if it is deemed system testing encountered excessive failures throughout.

3.1.6 Test deliverables

The following test deliverables (or their equivalents) are required to be produced by the RB for DBS's assessment:

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- Documentation covering testing prior to the formal DBS system testing (Including internal test evidence)
- Customised system test plan;
- Any changes to test cases or input test data;
- System test logs;
- System test incident reports;
- Completed System Test Exit Report
- System test data – the files produced by the interface during testing.

Where DBS has provided the RB with templates, the RB will be expected to provide results on that template.

The system test incident reports should include all RB incidents considered “open” and relevant to the E-Bulk interface at the beginning of the system test activity and any incidents raised during system test.

3.1.7 Test Tasks and Resources

This section contains an indicative set of tasks that are likely to be required to complete this test phase.

Task	Predecessor	Resources
1 Customise test plan and define test schedule	Provision of System Test Pack [STP] by CRB.	DBS and RB test manager
2 Customise DBS test cases and test data if required	task 1 + DBS test case specifications	DBS and RB test team
3 Execute test cases	task 2	DBS and RB test team
4 Record test incidents	task 3	RB test team
5 Resolve test incidents	task 4	RB development team
6 Repeat tasks 3-5 until successful	task 5	RB development and test team
7 Prepare test exit report	task 6	RB test manager
8 Transmit test deliverables to the DBS(test logs may already have been drip fed to the DBS)	task 7	RB test manager
9 Review of RB's System Test Exit Report and determination & communication of its success/failure.	task 8	DBS Test Manager / E-Bulk test lead

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The Registered Body (and IT supplier) must commit a dedicated test resource throughout the whole period of system testing. If this is unavailable the RB and DBS must re-plan new dates, this will avoid slippage and avoid possible DBS resource conflicts.

3.2 Test Phase 2 - Connectivity Testing

3.2.1 Objectives

The objectives of the connectivity test are:

- Basic connectivity testing – proving that a TCP/IP socket connection can be established between the RB test environment and the pre production CJSE.
- For RBs connecting from the Internet, the configuration of the FTPS client and installation of OCJR Technology's client and digital certificates will be tested.
- For all RBs, the configuration of the FTP(S) clients with OCJR Technology FTP username and password will be tested.
- The transfer of CRB01, CRB02, CRB03 and CRB04 messages in their relevant directions between the RB test environment and the pre production CJSE using the FTP(S) client.
- The transfer of CRB01, CRB02, CRB03 and CRB04 messages in their relevant directions between the RB test environment and the pre production CJSE using the RB test system
- The file transfer control mechanisms employed by the exchange as set out in the [ICD] and [MDI] documents

Only successful completion of connectivity testing will enable the RB to proceed to the Business Readiness test phase. The connectivity test proves basic connectivity between the RB test environment and CJSE pre production environment. The RB is not required to digest any messages sent to them.

DBS must stress the importance of the RB being fully ready to begin connectivity testing phase. All connectivity test and related documentation issued to the RB (or their IT Supplier) must be reviewed and fully understood. If the RB has any questions or issues these should be raised upfront, prior to commencing with the planned connectivity testing.

This phase of testing involves booking out dedicated time slots with the MOJ, the CJSE exchange which has a limited schedule. It also requires assigning specialist resource for the duration from DBS and the MoJ (both Fujitsu and Steria).

Failure to prepare fully could lead to delay whilst re-planning activities take place or additional cost being incurred.

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3.2.2 Overview

Prior to the start of connectivity testing, the DBS will provide the RB with a Connectivity Test Pack [CTP] pack, which will consist of the following:

- Connectivity Test Specification
- Connectivity Test Plan
- Template for Connectivity Test Summary Report

The [CTP] covers all the test conditions/cases that the RB is expected to execute.

3.2.3 References

In addition to the documentation listed in 2.2, RBs will be provided with the following documentation for this stage of testing:

- E-Bulk Connectivity Test Pack [CTP]

3.2.4 Process

This section summarises the process involved in conducting the connectivity testing, further details about this can be found in [CTP]. The connectivity test is expected to be a short duration activity and if there are no issues to resolve then it should be possible to complete test execution in one day. This will be arranged by a conference call with all stakeholders.

It is anticipated that the RB will use its development/test infrastructure/environment to undertake connectivity testing.

The first part of the connectivity test is focused on testing that the RB can establish a connection to the CJSE from its network using a telnet client. Once this has been achieved the next step is to verify that the RB has correctly configured its FTP client (as per the [OBD]) and then use this client to transfer files (a sample of XML files that represent e-Bulk messages as supplied by the DBS) with the exchange.

The RB will then use their test infrastructure for connectivity testing (user credentials, digital certificate and other required information will be provided by Steria prior to the testing). The connectivity test will consist of using the FTP **put** command to copy the XML files to the CJSE pre-production environment. The files will be copied to the “in” location for the RB being tested.

OCJR Technology will then move these same files to the “out” location, and the reverse of this process will be used to test getting files from the CJSE. Please note that the files that are received do not need to be downloaded by the processing RB.

To ensure the XML files are intact during and after this process the md5sum value of the files will be recorded by both the RB and DBS and subsequently compared to ensure the file has not changed during transmission.

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Once the test has completed, the RB in conjunction with OCJR Technology will produce a connectivity test summary report and submit it to the DBS.

3.2.4.1 Test Environments

The RB system test environment is expected to be used for connectivity testing. The basis for this expectation is:

- The CJSE is connected to the Government Secure Intranet (GSi) and therefore the systems which connect to the CJSE must adhere to the security protocols. Since achieving this security standard is non-trivial it is expected the RB will wish to configure as few environments as possible to this standard.
- Connectivity testing encompasses the configuration changes required to connect to the CJSE.

3.2.4.2 Communications software

The version and patch level of the communications software to be used in the RB's test environment must match that of their production environment.

The FTP (or FTPS) client will need to be configured to connect to the CJSE pre-production environment prior to testing. Information security best practices dictate that the SSL¹ certificate, IP addresses and FTP user names and passwords are provided as late as possible in the process (without delaying the process) and to the minimum audience necessary. Therefore the OCJR Technology systems administrator will contact the RB systems administrator directly to swap connection information, and to obtain the SSL certificate. The RB and 3rd party if used must protect the SSL certificate and connection information items from disclosure according to the relevant CoCo [CCG] or [CCI].

For FTPS the connectivity artefacts will be:

- an SSL certificate created specifically for the RB and applicable to the CJSE pre-production environment only;
- Client Authority certificate information for the CJS Exchange pre-production environment only;
- an FTP account and credentials created specifically for the RB and applicable to the CJSE pre-production environment only; and
- the IP address of the CJSE pre-production environment.

¹ References to SSL in this document are only relevant to the e-RBs planning to use the internet to connect to the CJS Exchange

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The tools required in addition to the test environment detailed above are an FTP client approved by OCJR Technology in the [OBD] and an md5sum computer program. Note that if a RB intends to use an FTP client other than those listed in the [OBD], this should be flagged to the DBS before development has commenced. This is to allow the RB to understand the risks associated with developing their system based on an FTP client which will not have been previously tested on the CJSE.

The md5sum program is usually installed by default on most UNIX and UNIX like operating systems including Linux and Macintosh OS X. Ports of the program to the Microsoft Windows environment are available for purchase or freely available².

3.2.4.4 Entry criteria

The RB has successfully completed system testing.

The RB has been authorised by the DBS to undertake connectivity testing.

The RB has completed and returned the relevant CoCo and Supporting Compliance Document and received a completed statement of conformity from OCJR Technology.

The RB has met the security standards set out by OCJR Technology in the CoCo to connect to the CJSE.

3.2.4.5 Test suspension criteria

Any incident or series of incidents which prevent execution of a test case (sending or receiving a file) in four hours or less should be considered grounds for suspension of the connectivity test. In this event the RB should notify the DBS. Additional costs may be incurred by the RB if the RB has to have multiple attempts at connectivity testing.

3.2.4.6 Exit criteria

The exit criteria are that the RB must have executed the test cases appearing in the Connectivity Test Pack [CTP].

3.2.5 Assessment

It will be the responsibility of the RB to conduct the connectivity tests..

The CJSE environment logs all transmissions between the CJSE and the RB's system. OCJR Technology will check the transmission log files generated during the RB's connectivity tests to ensure the files were sent and received without error. DBS will record, in the test summary report, a pass or fail mark for each test case performed. DBS and the RB will be jointly responsible for the production of the test summary report.

² For example <http://gnuwin32.sourceforge.net/downlinks/coreutils.php>

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The test summary report will be used by the DBS to determine whether the RB has passed this phase of testing.

In essence, the connectivity test will be considered successful if the files are sent and received successfully while maintaining the binary integrity of the files, and no errors are apparent in the CJSE transmission log.

3.2.6 Test Deliverables

The following test deliverables (or their equivalents) are required to be produced by the RB for DBS's assessment:

- Connectivity Test Summary Report

Furthermore, the DBS may request RB or OCJR Technology for the following:

- test logs; and
- any incident reports;
- Test Files

3.2.7 Test tasks and resources

This section contains an indicative set of tasks that are likely to be required to complete this test phase.

Task	Predecessor	Resource
1 Request Connectivity Test (RB requests to DBS)	1. DBS has given RB authority to undertake Connectivity Testing. 2. RB has completed and returned CoCo.	RB project manager
2 Request Connectivity Test (DBS requests to OCJR Technology)	task 1	DBS
3 Contact RB system administrator and configure appropriate CJS Exchange environment	task 2	Fujitsu (for IP address details etc.) and Steria (for arranging password/certificate exchanges).
4 Configure RB connectivity test environment	task 3	RB system administrator
5 Execute test cases	task 4	RB tester
6 Record test incidents	task 5	RB tester
7 Resolve test incidents	task 6	RB development team
8 Repeat tasks 4-7 until successful	task 7	RB development and test team

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9	Prepare test summary report	task 8	RB and OCJR Technology Service Desk
10	Transmit test summary report to RB, OCJR Technology and CRB test analyst	task 9	OCJR Technology Service Desk

3.3 Test Phase 3 - Business Readiness Testing

3.3.1 Objectives

The objective of Business Readiness Testing is:

E-Bulk Business Readiness testing will provide assurance that for each newly rolled out E-RB the FTP (File Transfer Protocol) 'Push and Pull' methods and 'File and Directory' naming conventions have been configured correctly in live.

3.3.2 Overview

E-Bulk Business Readiness Testing is performed once the E-RB's system has been promoted into production. This is live testing where by performing a simple end to end test, assurance can be gained by the Agency that the configuration across systems will support the E-Bulk solution. This testing will be the same for E-RB's connecting to CJSE through FTPS or a Secure Government Network (e.g. GSi).

Each integrated system (RB/CJSE/CRM) will be treated as a black box. Only the configuration that has been set up to interface the live systems will be tested. DBS will perform an additional check to ensure the application details have been successfully recorded on their CRM application providing further agency confidence in the live implementation.

Prior to the start of E-Bulk Business Readiness Testing, the DBS will provide the RB with an E-Bulk Business Readiness Testing Pack [BRTP], which will consist of the following:

- Business Readiness Plan
- E-Bulk Readiness Implementation Plan

The [BRTP] provides details of the test applications that need to be sent across the exchange on 'Go Live' day. It also contains full details of responsibilities and the sequence of tasks to be performed prior to and also on the day.

3.3.3 Process

DBS will produce the Business Readiness Plan and E-Bulk Readiness Implementation Plan and publish them in the E-Bulk Business Readiness Testing Pack [BRTP]. The testing detailed in this pack focuses on sending two applications containing dummy data

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from the E-RB live system through live CJSE to the DBSB live system. Two blank certificates will then be sent back to the E-RB in the form of eResults contained in a CRB04.

Testing will be coordinated by the DBS Test team who will ensure each party performs the required tasks at the correct time and all necessary checks are made. Full details of responsibilities and tasks are detailed in the E-Bulk Readiness Implementation Plan.

At the DBS's discretion additional tests may be performed in addition to the two applications detailed above. This may occur if a particular area of functionality could not be tested in the test environments prior to go live. Where additional tests are to be performed jointly by the E-RB and DBS these will be detailed in the Business Readiness Plan. The details of any additional tests, will be shared between DBS/CJSE/RB. As any additional testing would need to involve all parties as this is on the live environment

3.3.3.1 Test Environments

Business Readiness testing is unique as it is performed on the Live environment. No test environments are required for this test. Live configuration will be as detailed in the relevant documentation in section 2.2 of this document.

3.3.3.2 Incident recording

DBS will record all test incidents encountered on the live E-RB, CJSE and the DBS's system during the test. Incidents that have not been cleared by the end of the day will form part of the 'Go Live' assessment (see section 3.3.4)

3.3.3.3 Entry criteria

- System Test Accreditation Certificate, and Connectivity Test Accreditation Certificate (both issued by DBS)
- Agreement of a suitable 'Go Live' implementation date between DBS and the RB.

3.3.3.4 Pass/fail criteria

Business Readiness testing will be classed as a success (pass) if all pass/fail steps detailed in the plan have been passed on completion of testing. Where a step has failed and cannot be resolved on the day the severity of this will be assessed by the DBS test manager and the DBS and RB project managers as to whether the E-RB can still proceed to a 'Go Live' status.

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3.3.4 Assessment

On completion of the Business Readiness Testing, the DBS will issue a Business Readiness Testing Report internally. The DBS will use the report to undertake a risk assessment with respect to go live of the interface.

Where the report details a failed step the DBS Test Manager and the DBS and E-RB Project Managers agree no resolution is required or that a resolution(fix) can be made post 'Go Live' the testing may still be classed as a success and the E-RB allowed to start sending the DBS live applications.

Although highly unlikely, where no agreement between the DBS and E-RB can be met on a failure, the DBS at its discretion may prevent the RB from sending live applications to them until a resolution is found and successfully tested. Timescales for any retest and subsequent live implementation will be dependent upon the incident encountered. It is hoped that most issues at this stage will be resolved on the day.

Based on the assessment, the DBS test manager and the DBS and RB project managers will determine whether a complete or partial re-run of the test will need to be performed. DBS will need to understand the impact of the changes to be made by the prospective RB in order to determine the scope of the test re-run.

3.3.5 Test deliverables

The test deliverables produced by the DBS will consist of:

- Completed Business Readiness Plan(Pass/Fail steps completed)
- Business Readiness Testing Report
- Business Readiness Testing Accreditation(only where agreed the live configuration for the particular RB passed assessment)

3.3.6 Test tasks and resources

This section contains an indicative set of tasks that are likely to be required to complete this test phase.

Task	Predecessor	Role
1 Understand and potentially customise Tests.	Accreditation of system test and successful connectivity test	RB
2 Plan test execution in line with agreed 'Go Live' date	task 1	RB and DBS
3 Execute test cases	Task 2	DBS and RB Live support.
4 Record test incidents	task 3	DBS tester

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			RB and DBS development team System administrators from both the E-RB and DBS. Any decisions will be made in conjunction with both the RB and DBS project managers.
5	Resolve test incidents	task 4	
6	Repeat tasks 3-5 until successful. Note as this is live testing there are constraints on the live testing window.	task 5	DBS and RB.
7	Prepare test summary report	task 6	RB and DBS
8	Publish Business readiness test accreditation	task 7	DBS

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Appendix A – References

The table below lists references to other relevant documentation. References to these documents, if and when included within the text of this document, are made using the square-bracket notation shown in the “ID” column of the table.

Document	ID	Purpose
Interchange Agreement	[IA]	States the agreed business level agreement that governs the use of the interface end to end between RBs and the DBS.
Business Process Document	[BPD]	Defines the information exchange between the end points (RB and DBS systems) and the business process that surrounds and controls it.
Business Message Specification	[BMS]	Defines the business content of messages that will pass between the end points (RB and CRM systems). ISA/VBS requirements that change the published E-Bulk schema will be contained in a revised version of the Business Message Specification currently under construction.
Message Integrity Specification	[MIS]	Defines the approach to assuring integrity of business messages used for the business information exchange between the end points (RBs and the DBS systems).
Interface Control Documents	[ICD]	Defines the specific configuration of message delivery and operational interface protocols that will be used by end points (e.g. RB systems).
Message Delivery Interface documents	[MDI]	Describes the message transport mechanism provided by the CJSE that enables an end point to communicate with the CJSE.
IEEE Std 829-1998	[IEEE829]	Standard for Software Test Documentation.
E-Bulk Connectivity Test Pack	[CTP] (phase 2)	The pack of the connectivity testing which must be passed in order to proceed to integrated testing.
E-Bulk System Test Pack	[STP] (phase 1)	The pack of the system testing which must be passed in order to proceed to readiness check integrated testing. System Test Pack will consist of: <ul style="list-style-type: none"> 1. System Test Plan 2. System Test Documentation set including test XML files, Test Incident Report Template 3. System Test Summary Report Template
E-Bulk Business Readiness Test Pack	[BRTP] (phase 3)	The pack for Business Readiness Testing which must be passed in order for the RB to commence submitting ‘live’ applications to DBS. This pack will consist of: <ul style="list-style-type: none"> 1. E-Bulk Business Readiness Plan 2. E-Bulk Readiness Implementation Plan
Code of Connection	[CCG]	A OCJR Technology document; the Code of

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CJSRB (GSi)		Connection security specification which the RB system must adhere to in order to connect to the CJSE via the Government Secure Intranet (GSi). It is technically simpler, and therefore preferable, to connect via GSi if the RB is already connected to the GSi.
Code of Connection CJSRB (Internet)	[CCI]	An OCJR Technology document; the Code of Connection security specification which the RB system must adhere to in order to connect to the CJSE via the Internet.
E-Bulk-CJSE OnBoarding Document	[OBD]	An OCJR Technology document; the guidance on tested FTP clients and FTP configuration.
Supporting Compliance Document	[SCD]	This Supporting Compliance Document must be completed by a Registered Body when connecting to a service provided by the MoJ Exchange Services, which requires additional evidence of compliance over that provided by completion of a code of connection/Terms & Conditions.
Internal Test Evidence	[ITE]	The RB will be required to prove that their system has adhered to the BMS, screen shots will be provided to the DBS, as evidence to prove that the RB has tested to the necessary vigour/level

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Appendix B - Abbreviations

Abbreviation	Meaning
CJIT	Former name of OCJR Technology: Criminal Justice Information Technology.
CJS Exchange	Criminal Justice System Exchange
CoCo	Code of Connection
E-RB	E-Bulk enabled Registered Body
FTP	File Transfer Protocol
FTPS	File Transfer Protocol over SSL
Fujitsu	Responsible for network and firewall configuration
GSI	Government Secure Intranet
OCJR Technology	Office for Criminal Justice Reform.
RB	Registered Body
SSL	Secure Sockets Layer. A protocol for establishing an encrypted channel between a server and a client. SSL was developed by Netscape, and in practice today Transport Layer Security (TLS) protocol is used as a non-proprietary equivalent.
Steria	Responsible for the delivery of passwords and certificates
TCP/IP	Transmission Control Protocol/Internet Protocol
XML	eXtensible Markup Language
ITE	Internal Test Evidence
PQQ	Pre Qualification Questionnaire
BMS	Business Message Specification
DBS	Disclosure and Barring Service

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Appendix C - Terminology

Term	Meaning
E-Bulk	The term that has been given to the interface described in this document, named as such because it provides an electronic mechanism for submitting applications in bulk (i.e. in batches, as opposed to one at a time).
eBulkApplication sBatch (CRB01)	XML file generated by RB system and sent to CRM that represents a batch of up to 50 eBulkApplications.
eBulkApplication sBatchRejection (CRB02)	XML file generated by CRM that represents a file level rejection of a CRB01 message. This file is sent to the RB system that generated the original CRB01 message.
eBulkApplication ReceiptsBatch (CRB03)	XML file generated by CRM to indicate whether individual eBulkApplications from a particular RB have passed or failed initial validation. This message is generated either on a regular interval or when the number of eBulkApplications from a particular RB passes a predefined threshold.
eBulkResultsBatch (CRB04)	XML file generated by CRM to indicate the results of individual eBulkApplications (blank or non blank) from a particular RB. This message is generated either on a regular interval or when the number of eBulkApplications from a particular RB passes a predefined threshold.
eBulkApplication	An application for a DBS check sent by electronic means. In the context of this document, this refers to a Disclosure application sent via the E-Bulk interface.
eBulkResult	An electronically delivered response to an eBulkApplication. An eBulkResult indicates, to an RB, either that a Certificate contains no information or that they must await the applicant producing their Certificate to the RB.
XML Schema	A standard for defining the format of XML documents. The standard provides a means by which tools can know the correct format of a document, enabling them to provide generic operations such as validation.
System Test	System testing of software is testing conducted on a complete, integrated system to evaluate the system's compliance with its specified requirements. System testing falls within the scope of black box testing, and as such, should require no knowledge of the inner design of the code or logic. ³
Test Harness	It is DBS's intention to provide a test harness or an equivalent facility to allow the following activities to take place For eligible Registered Bodies (RB) to perform tests of their own developments before connecting to pre-production E-Bulk services. To conduct an integrated test involving the prospective RB system, CJS Exchange and the DBS.
Black Box Test	A black box test is one conducted without knowledge of the inner workings of the system being tested. Black box tests are typically functional. The test defines the inputs and the expected outputs, but

³ IEEE Standard Computer Dictionary 1990

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	no inspection of the workings the system performs is made.
Integrated, end to end test.	An integrated (or end to end) test is one conducted with a number of participating systems involved in a single solution. The systems will be connected to one another as they would be if the solution were running in the production environment.

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Appendix D - Prospective RB Roles

RBs are expected to nominate suitable resources for the following roles and supply them to DBS's E-Bulk Project Manager. They will then be set up with secure email accounts.

Role
RB Project manager
RB Test Manager

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Appendix E - DBS Roles

The table below lists the DBS roles who will take responsibility for assisting RBs with their development life-cycle and rollout.

Role	Comments
	DBS will provide RBs with a suitable contact
E-Bulk Rollout Manager	who would take responsibility within DBS for
E-Bulk Test Analyst (to be allocated)	looking after each of these three areas of
	work.
	Until you receive the contact details for the
	above roles please send all your queries to
	the following e-mail address and they will be
	addressed adequately:
	TBC