



MoReq2010[®]
Modular Requirements for Records Systems

Test Framework Overview and Instructions

Version 0.1 BETA

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1. Fundamentals

1.1 Important Information

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1.1.3 Citation

This publication should be formally cited as:

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1.1.5 Conventions used in this publication

Throughout this specification all test cases are prefixed for easy identification, as follows:

- T – Test case.

Note that any reference numbers prefixed in this way are for document look up purposes only, are relative to a specific minor version of the MoReq2010® test framework, and may be subject to change in any future major or minor version as requirements and definitions are added or changed.

1.2 Purpose

1.2.1 Test Framework

The MoReq2010® test framework accompanies and supplements the MoReq2010® specification and defines all those resources and materials necessary to undertake the formal testing and certification of a MoReq2010 Compliant Records System (MCRS) by an accredited test centre.

These include:

- An explanation of the overall testing and certification process;
- How to prepare and apply for testing;
- The procedure to be followed by the supplier and test centre for conducting individual module tests;
- The test modules for each core service and plug-in or extension module defined by MoReq2010®; and
- Within each test module:
 - The test data required as a precondition the module test;
 - The test script for the module test; and within each test script
 - Individual test cases correlating to at least one of the MoReq2010® functional requirements.

1.2.2 Overview and Instructions

This document, the overview and instructions for the test framework, contains the main narrative explanation, for both suppliers and test centres, that accompanies the testing and certification process. In this document each phase of the process is clearly explained and broken up into separate sub-phases where necessary.

This document is a reference source that can be used when undertaking qualification, during testing and after testing when completing the test report.

The pre-qualification questionnaire, test modules, etc. are contained in separate documents of the test framework. The complete set of documentation that makes up the test framework for MoReq2010® can be found listed under **1.3 Test Materials**.

1.2.3 Audience

The MoReq2010® test framework is intended for:

- Suppliers of MCRS solutions to help prepare products and site installations for MoReq2010® certification;
- Accredited test centres for use during testing against the MoReq2010® specification;
- Researchers and industry experts to enable them to understand all aspects of the MoReq2010® specification; and
- Users who wish to know more about how MCRS solutions are tested and certified.

1.3 Test Materials

1.3.1 Materials included in the test framework

The materials listed below are all included as part of the MoReq2010® test framework.

Document	Comment
Test Framework: Overview and Instructions	Outlines the MoReq2010® test framework and includes those processes and procedures necessary for testing and certifying MCRS solutions against the MoReq2010® specification.
Test Module 0: Familiarisation and training	Preliminary test module that tests the functional requirements for interfaces in 101. Graphical User Interface (GUI) and 102. Application Programming Interface (API) . Intended as an introductory test module that provides the test centre with hands on experience so that the other formal test modules may be completed.
Test Module 1: User and Group Service	Test module that tests mainly the functional requirements in 3. User and Group Service .
Test Module 2: Model Role Service	Test module that tests mainly the functional requirements in 4. Model Role Service .
Test Module 3: Record Service	Test module that tests mainly the functional requirements in 6. Record Service .
Test Module 4: Model Metadata Service	Test module that tests mainly the functional requirements in 7. Model Metadata Service .
Test Module 5: Disposal Services	Test module that tests mainly the functional requirements in 8. Disposal Scheduling Service and 9. Disposal Holding Service .
Test Module 6: Searching and Reporting Service	Test module that tests some of the functional requirements in 10. Searching and Reporting Service that are not tested by other test modules.

Document	Comment
Test Module 201: Hierarchical Classification	Test module that test mainly the functional requirements in plug-in module 201. Hierarchical Classification .
Test Module 301: Electronic Components	Test module that test mainly the functional requirements in plug-in module 301. Electronic Components
Test Pre-Qualification Questionnaire	The application form that must be completed by the supplier and ratified by the accredited test centre before any testing of an MCRS solution may be carried out.
Test Report and Recommendation for core services	<p>The report compiled by the accredited test centre and sent to the DLM Forum when MoReq2010® core services are tested. Extra modules can be tested at the same time as the core services and only one test report is required.</p> <p>The test report must contain: the supplier's pre-qualification questionnaire, the test results from all test scripts and test cases, and the accredited test centre's recommendation, for or against certification of the MCRS solution.</p>
Test Report and Recommendation for extra modules	The report compiled by the accredited test centre and sent to the DLM Forum when extra modules are tested and the core services are not tested.

1.3.2 Related materials

The additional materials listed below are not formally part of the MoReq2010® test framework but are referred to by the process descriptions contained in this document.

Document	Comment
Accreditation Agreement	The form of legal contract agreed between the DLM Forum and its accredited test centres.
Certificate of Compliance	The paper certificate issued by the DLM Forum to a supplier upon the completion of a certification agreement.
Certification Agreement	The legal contract that accompanies a letter of offer which must first be agreed between the DLM Forum and supplier before the supplier's MCRS solution can be considered to be officially certified.
Letter of Offer (certification of core services)	The letter of offer of certification sent by the DLM Forum to suppliers where their MCRS solutions have successfully completed testing against the MoReq2010® test framework.
Letter of Offer (certification of extra modules)	The letter of offer of certification sent by the DLM Forum to suppliers where their previously certified solutions have successfully completed additional testing of extra modules.
MoReq2010® Accredited Test Centre Logo	An official logo provided by the DLM Forum which may be displayed by an accredited test centre on its website or reproduced within its documentation in accordance with the terms and conditions within the accreditation agreement .

Document	Comment
MoReq2010® Certified MCRS Solution Logo	An official logo provided by the DLM Forum which may be displayed by a supplier on its website, on product packaging, or reproduced within its documentation in accordance with the terms and conditions within the certification agreement .
Non-Disclosure Agreement	The form of legal undertaking that must be agreed by a member of the DLM Forum, before that member can access the test report for an MCRS solution that has been certified by the DLM Forum.

1.4 Background

1.4.1 Test programme objectives

An important design goal of the MoReq2010® programme has been to provide a robust specification that allows solutions to be pre-tested for compliance before they are purchased or put into commission. Compliance testing provides the assurance necessary during procurement projects that a particular records system will meet the needs of the organisation and is compatible with other MCRS solutions. It also reduces the amount of environmental and acceptance testing necessary before MCRS solutions can be put into operation; this in turn reduces organisational costs and implementation times. Transfer of records and other entities between records systems is only possible where both systems are fully compliant with the MoReq2010® specification and the receiving system additionally implements the Import extension module.

An important output of the test programme is the test report for each MCRS solution. These test reports provide a valuable resource for members of the DLM Forum to access detailed information on how a particular MCRS solution meets each requirement, and what it looks and behaves like during operation. This is particularly relevant to the MoReq2010® test programme because the specification actively encourages a wide range of different types of MCRS solution.

MoReq2010® does not apply only to centralised enterprise records systems, but equally to specialised business applications that fit within a narrow vertical market but nevertheless manage their data as records. This wide diversity of different implementations makes the provision of a complete test report, to back up the MoReq2010® certification, an essential resource so that like-for-like comparisons can be made by potential consumers.

MoReq2010® test reports are structured to provide information about the MCRS solution that will be of value to procurement projects. The pre-qualification questionnaire gives a

supplier an opportunity to describe the capabilities of its records system to a potential audience.

The test cases conducted by the test centre then ratify the description provided by the supplier, while the test centre is also encouraged to provide additional clarification where necessary. By this method, the resulting test report becomes an excellent source of in depth and independently verified information about the MCRS solution, provided by the supplier.

The DLM Forum makes the successful test reports for MCRS solutions available to members of the DLM Forum (only) under a strict non-disclosure agreement, and only for those solutions that have been issued with a certificate of compliance.

1.4.2 Accreditation

The DLM Forum through the MoReq Governance Board, has a programme for vetting and accrediting independent organisations as test centres. Any organisation that is not itself an MCRS supplier in any country can apply for accreditation to the DLM Forum. This programme is not restricted to commercial test centres but applies equally to non-commercial test centres, such as, in some countries, government agencies. It should be noted that not all test centres can necessarily provide testing services across all modules of MoReq2010®. This must be checked with the DLM Forum and the individual test centre.

A list of accredited test centres is maintained by the DLM Forum and published on its website. A supplier may approach any accredited test centre in any country for testing against the MoReq2010® specification. The arrangement between the test centre and the supplier covering testing is a confidential commercial agreement between these two entities and the DLM Forum is not a party to it, although the accreditation agreement between the DLM Forum and the test centre does specify certain mandatory flow-down provisions that must always be present in such an agreement.

1.4.3 Qualification, testing and certification

A supplier initiates the testing and certification process upon entering a testing agreement with an accredited test centre. The process is outlined in full in **2. Testing and certification** and involves two overall stages: testing and certification.

The testing phase starts with the supplier filling in a pre-qualification questionnaire (PQQ). This is then checked by the test centre prior to subjecting the MCRS solution to testing for the requested core services and modules. **3. Qualification** contains information about how suppliers should complete the PQQ and how it is subsequently checked while **5. Test procedures** describes how the testing undertaken for each test module should take place.

Each test module is self contained, consisting of test data, a test script of sequential test cases and expected test outcomes. Test modules can be found separately in their own documents. However, **Appendix A. Mapping of functional requirements to test modules** contains a matrix showing in which test module(s) each functional requirement is tested. It should be noted that within the test modules some functional requirements are tested only once within a single test module while other functional requirements are tested multiple times across different test modules. Non-functional requirements are included in the PQQ but are not tested. Further information can be obtained from the test modules themselves.

MoReq2010® contains two model services: the model role service and the model metadata service. This means that a supplier is able to substitute a functionally equivalent native service for the model service in the MCRS solution. Where a solution implements a native service rather than a model service the test centre and supplier must agree on a suitable test script to show equivalent functionality. This is discussed in **4. Native services and interfaces**.

Sometimes during testing one or more observers from the DLM Forum will be present in addition to the supplier's and test centre's own representatives.

1.4.4 Certification

The testing stage ends with the completion of a test report by the accredited test centre. Bound within the test report is the supplier's original PQQ, which the test centre will have formally confirmed during testing. **6. Test reports** contains instructions related to how the test report is completed by the test centre.

The test report contains the recommendation of the test centre, either to certify, or not to certify, the supplier's solution. The full test report is then sent to the DLM Forum, which will use it, along with its own observations of the test process, as a basis for determining whether or not to send a letter of offer to the supplier, inviting the supplier to enter into a certification agreement.

The certification agreement allows the supplier to advertise its solution as a MoReq2010® Compliant Records System and to display an official logo on product related web pages and packaging. The DLM Forum also publishes a full list of all certified MCRS solutions on its website.

It should be noted that the DLM Forum will charge the supplier an administrative fee for certification. This fee is separate to, and independent of, the supplier's commercial arrangement with the test centre and is used to cover some of the costs of running the accreditation, testing and certification programme, including:

- Assessment and accreditation of test centres;
- Provision of expert observers during testing; and
- Independent validation of PQQ and test reports.

The administrative fee for certification is a one time charge and not subject to any on going licencing or maintenance. All administrative fees for certification are published by the DLM Forum and may be subject to modification, for example, by discount to those suppliers that are members of the DLM Forum.

1.4.5 Testing of extra modules

MoReq2010® is a modular specification where some MCRS solutions may choose to offer flexibility and additional functionality by implementing a range of extra modules. These include plug-in modules, that replace functionality to be found in the core services, and extension modules, that add new functionality to the solution.

To complete testing against the core services of MoReq2010® at least three plug-in modules must be simultaneously tested. Extra modules may only be certified once the core services and these plug-in modules have been tested.

Extra modules can be tested at the time a solution is originally put forward for testing of its core services, or at any time subsequently for those MCRS solutions that have been previously certified.

When extra modules are tested along with the core services there are no additional instructions necessary. **7. Testing extra modules independently** provides information for suppliers and test centres for those circumstances where one or more extra modules are tested by a test centre, at a later date, for an MCRS solution that has already been previously certified by the DLM Forum.

It should be noted that where this occurs it is not necessary for the testing of the extra modules to be carried out by the same test centre where the solution's core services were originally tested.

Where the testing of extra modules is successful the DLM Forum will invite the supplier to enter an amended certification agreement covering the whole of the MCRS solution including the extra functionality for a small administrative fee.

2. Testing and certification

2.1 Process outline

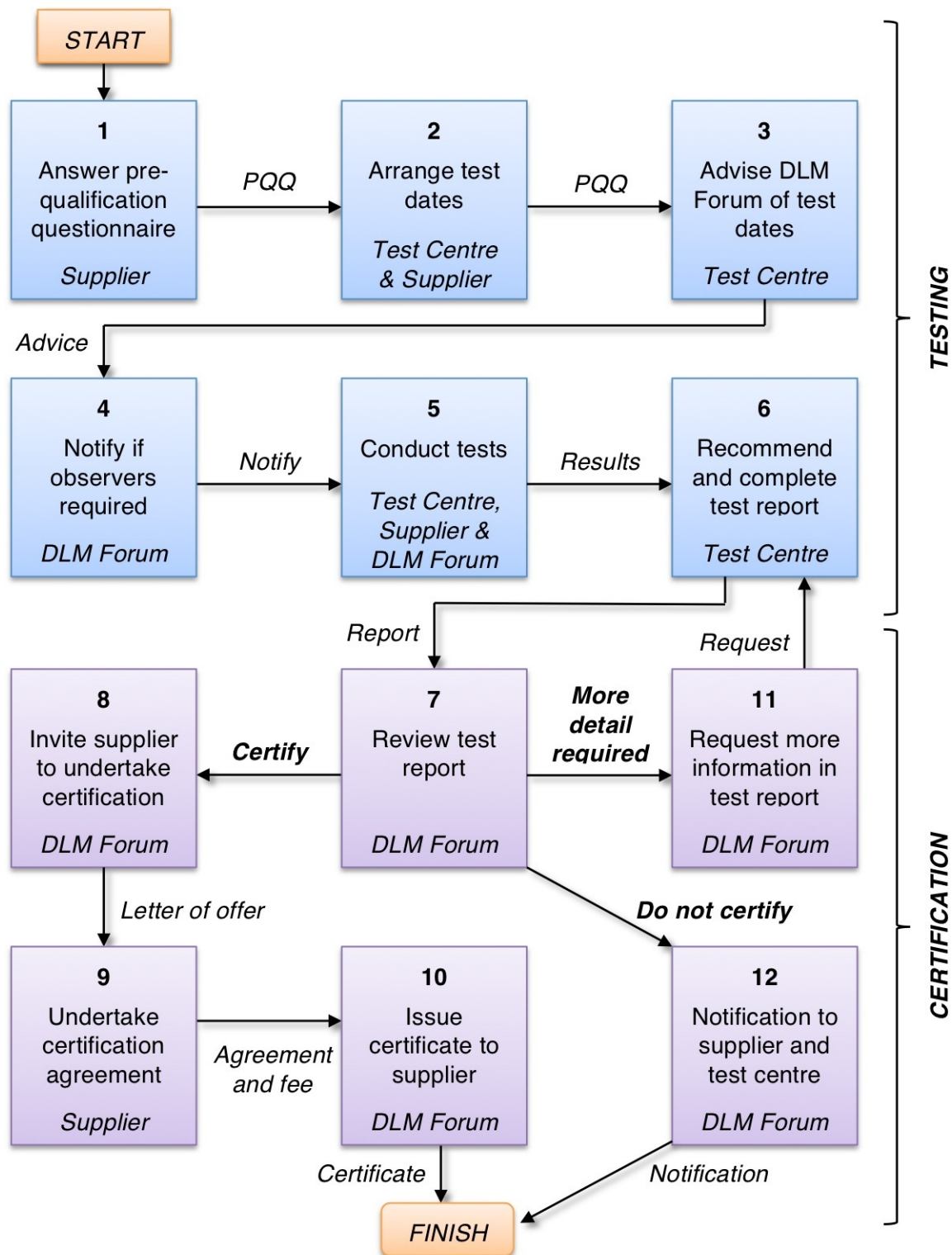


Figure 2a - The testing and certification process from the test centre accreditation agreement

Under the accreditation agreement between the DLM Forum and its accredited test centres, they agree to jointly oversee the testing and certification process. The process diagram, also found in the accreditation agreement, is shown in **Figure 2a** above. The next section **2.2 Process description** describes each step in the testing and certification process.

2.2 Process description

2.2.1 Answer pre-qualification questionnaire

In this step, the supplier initiates the testing and certification process by answering the PQQ and forwarding it to an accredited test centre. Instructions on how to undertake this step can be found in **3. Qualification**, below.

During this step the supplier must ensure that it answers every question in the PQQ, depending upon which services and modules the supplier wishes to have certified, and provides the test centre and the DLM Forum with the maximum amount of succinct information possible, in order for the test centre to judge whether the solution is suitable for testing.

2.2.2 Arrange test dates

Upon receipt of the completed PQQ from the supplier, the test centre must determine if the PQQ has been completed satisfactorily and whether the test centre is able to provide the necessary testing service for the solution. Not all test centres are able to certify all extra modules of MoReq2010® so it is possible that a test centre is not able to undertake testing of a particular solution.

Should the test centre deem that it has received sufficient information from the supplier, then it will make arrangements with the supplier to perform physical testing of the solution, including establishing the test dates when testing will take place and arranging the premises where the testing will take place.

2.2.3 Advise DLM Forum of test dates

Notification of test dates and the test location arranged between a test centre and a supplier must be forwarded to the DLM Forum with sufficient notice period for the DLM Forum to provide observers during testing, should it decide to do so. The necessary period for advance notice, and other contractual obligations regarding the provision of observers, may be found in the accreditation agreement between the DLM Forum and the test centre.

When notifying the DLM Forum of arranged test dates, the test centre must simultaneously forward to the DLM Forum, along with the notification, a full copy of the PQQ completed by the supplier. The DLM Forum uses the completed PQQ for monitoring the test centre and providing observers to testing sessions.

2.2.4 Notify if observers required

In some cases the DLM Forum will not provide its own independent observers during testing. The DLM Forum is more likely to provide observers in circumstances where a test centre is new to the accreditation programme, a solution is being tested for compliance against the core services, rather than an individual extra module, or where the test materials

are in Beta release so as to check the efficacy of the test materials and provide feedback into the testing programme.

Whether the DLM Forum elects to send observers or not it will communicate its intentions back to the test centre.

2.2.5 Conduct tests

Representatives from the test centre, supplier and possibly DLM Forum observers meet together to carry out the tests of all relevant services and modules. This is conducted by completing the test scripts detailed within each test module. The test modules are undertaken in order.

5. Test procedures contains instructions and checklists for the activities that should be carried out by both the supplier and the test centre before, during and after each test. MoReq2010® requires that each test module be completed before another test module is attempted. It also requires that any failure to complete a test case will result in retesting the test module as a whole.

5.4 Repeating a test contains instructions on how to retest a solution that previously failed to complete a particular test module.

If the solution implements a native role or metadata service in place of a model service then the native service must be tested by the supplier and test centre in accordance with the instructions in **4. Native services and interfaces**.

Testing may cover the core services of MoReq2010 and/or any extra modules. Extra modules may only be tested individually for solutions that have previously been certified in accordance with **7. Testing extra modules independently**.

During testing the test centre also completes its own independent validation of the supplier's responses to the PQQ, for every functional requirement that it tests.

2.2.6 Recommend and complete test report

Immediately after testing the test centre completes the full test report and recommendation ready for forwarding to the DLM Forum. **6. Test reports** describes how test reports are to be completed by the test centre and how recommendations are made. Any disputes between the test centre and supplier over the content of the test report and recommendation must be resolved, in the first instance, through the test centre's own dispute resolution mechanism.

The test report must include, at least:

- For each test undertaken a completed test result form including whether the test was passed or failed and the test centre's observations describing how the test was conducted;
- The completed PQQ from the supplier and for each supplier response in the PQQ the test centre's observations on the accuracy and completeness of the supplier's responses;
- The test centre's overall summary of the test results and how the tests were conducted; and
- The test centre's recommendation to the DLM Forum for certification (or otherwise).

The test centre then forwards the full test report to the DLM Forum.

2.2.7 Review test report

Upon receipt of the completed test report from the test centre, the DLM Forum will conduct its own independent review and assessment of the completeness and accuracy of the test report and recommendation. The DLM Forum's review may include additional submissions or information obtained from other sources, for example, the independent report of its own observers present during testing.

In conducting its review, the DLM Forum may act otherwise to the recommendation made by the test centre in the test report.

The outcome of the DLM Forum review will always be one of the following:

- The supplier is invited by a letter of offer to enter into a certification agreement with the DLM Forum (see **2.2.8 Invite supplier to undertake certification**);
- The supplier is not invited to undertake certification by the DLM Forum as a result of a negative recommendation from the test centre or faults in the solution or test report that cannot be rectified (see **2.2.12 Notification to supplier and test centre**); or
- The DLM Forum decides that the test report is incomplete or insufficient to make a decision on certification (see **2.2.11 Request more information in test report**).

Where the DLM Forum does not invite the supplier to enter into a certification agreement, the supplier must correct the solution and have it tested again in its entirety by the same or different accredited test centre.

2.2.8 Invite supplier to undertake certification

The letter of offer sent by the DLM Forum to a supplier is independent of the testing process which ends when the test centre forwards the test report and recommendation to the DLM Forum. The accredited test centre cannot, and is not permitted under the accreditation agreement with the DLM Forum, issue its own version of a certificate of compliance to a supplier whose MCRS solution it has tested.

2.2.9 Undertake certification agreement

Following a letter of offer, certification is conditional upon receipt of the administration fee and acceptance by the supplier of the terms and conditions in the certification agreement.

2.2.10 Issue certificate to supplier

The certificate issued to the supplier by the DLM Forum will list which extra modules the solution is certified against, in addition to the core services. This information will also be posted by the DLM Forum on its website.

Among other benefits, certification makes available to the supplier a special MoReq2010® Compliant Records System logo that may be used by the supplier as a quality mark for its solution, subject to the terms and conditions of the certification agreement.

Upon certification, the DLM Forum makes the successful solution's test report available to members of the DLM Forum (only) upon completion of a non-disclosure agreement as described in **5.4 Accessing a test report**.

It should be noted that the test reports for solutions that are not certified for any reason (see **2.2.11** and **2.2.12** below) will remain sealed and will not be made accessible to members of the DLM Forum.

2.2.11 Request more information in test report

Where the DLM Forum decides that the test report is incomplete or insufficient for the purposes of certification it will send it back to the test centre along with a record of the DLM Forum's deliberations.

The communication from the DLM Forum to the test centre will indicate those areas in which the test report is not suitable and request appropriate remedial measures, such as the provision of more information, or in some cases, re-testing of the supplier's solution.

Should the test centre, and possibly the supplier, not be able to rectify the test report to the satisfaction of the DLM Forum within a suitable timeframe set by the DLM Forum, then the supplier will not be invited to undertake certification and the process will closed with no invitation to the supplier to be certified (see **2.2.12 Notification to supplier and test centre**).

Where there is a dispute between the test centre and the DLM Forum on any matter related to the test report, the DLM Forum has put in place a dispute resolution process which is detailed under the accreditation agreement.

2.2.12 Notification to supplier and test centre

Where the DLM Forum decides not to invite the supplier to undertake certification, the DLM Forum will always notify both the supplier and the test centre of its decision and the full reasons behind it.

3. Qualification

3.1 Answering the pre-qualification questionnaire

3.1.1 Supplier/solution information

The PQQ is a large document divided up into discrete sections. The supplier does not have to complete every section of the PQQ. Some information in the PQQ is provided by the test centre, and the supplier need only provide responses for those services and modules that are being submitted for testing.

The supplier must answer every question in the first section entitled: Supplier/Solution Information. This is used to identify the supplier and the solution and version of the solution that is being tested. A supplier may supply more than one MCRS solution. Where this occurs each solution must be separately certified against MoReq2010®.

3.1.2 Solution type

In most cases the solution type will either be a common off-the-shelf (COTS) product, a site installation or a cloud solution.

A COTS product is a traditional application that can be installed on any suitable server hardware. There can be many installed instances of COTS products.

A site installation is defined as a specific implementation of a product. The product could be a commercial COTS product, or an open source derivation or a system developed in house. Testing and certification of a site installation does not extend to the individual products that have been used to build the site installation, but only to their particular configuration and deployment on site.

A cloud solution is one that is deployed across the Internet. It could be either a public or a private cloud solution. The solution itself will consist of a client/server deployment where the server component and data reside on servers located inside data centres. Access to the cloud solution will be by web browser and/or a specialised client app (application).

Software products and cloud solutions may be tested in any suitable location where access to the solution is available. Site installations must usually be tested on premise.

3.1.3 Difference between major and minor versions

The supplier is asked to clearly note the version number of the MCRS solution to be tested. Version numbers usually comprise at least two parts: the major version number and the remaining minor version number.

Major version numbers are generally used by suppliers throughout the industry to indicate significant changes to the solution and its functionality, including: architectural changes, refactoring, new features, new interfaces, etc. Depending on the development and release cycle of the supplier, major version numbers are expected to increment every 18 months to 4 years, and on average every 2 to 3 years.

Minor version numbers generally indicate small incremental changes to a solution that do not change its feature set, these may include: bug fixes, software patches, service packs, etc.

The frequency of adoption of minor versions is expected to be less than every two years, with the average being 6 to 12 months apart, depending on development cycles.

It is important to identify the major version of the MCRS solution, because this has an effect on the scope and duration of the certificate issued by the DLM Forum. This is discussed in **6.4 Certificate scope and duration**.

3.1.4 Which sections must the supplier answer?

As part of answering the questions in the first section of the PQQ the supplier is asked to indicate the particular services and modules to be tested.

Indicate the services and modules to be tested

<input type="checkbox"/> CORE SERVICES		
2. System Services		
3. User and Group Service	<input type="checkbox"/> GUI	<input type="checkbox"/> API <i>(select at least one)</i>
4. Model Role Service, either		
• Model Role Service, or	<input type="checkbox"/> GUI	<input type="checkbox"/> API
• Native Role Service	<input type="checkbox"/> GUI	<input type="checkbox"/> API
5. Classification Service	<input type="checkbox"/> GUI	<input type="checkbox"/> API
6. Record Service	<input type="checkbox"/> GUI	<input type="checkbox"/> API
7. Model Metadata Service, either		
• Model Metadata Service, or	<input type="checkbox"/> GUI	<input type="checkbox"/> API
• Native Metadata Service	<input type="checkbox"/> GUI	<input type="checkbox"/> API
8. Disposal Scheduling Service	<input type="checkbox"/> GUI	<input type="checkbox"/> API
9. Disposal Holding Service	<input type="checkbox"/> GUI	<input type="checkbox"/> API
10. Searching and Reporting Service	<input type="checkbox"/> GUI	<input type="checkbox"/> API
11. Export Service	<input type="checkbox"/> GUI	<input type="checkbox"/> API
100. INTERFACE SERIES		
<i>(select at least one if testing core services)</i>		
<input type="checkbox"/> 101. Graphical User Interface (GUI)	<input checked="" type="checkbox"/> GUI	<input checked="" type="checkbox"/> API
<input type="checkbox"/> 102. Application Programming Interface	<input checked="" type="checkbox"/> GUI	<input checked="" type="checkbox"/> API
200. CLASSIFICATION SERIES		
<i>(select at least one if testing core services)</i>		
<input type="checkbox"/> 201. Hierarchical Classification	<input type="checkbox"/> GUI	<input type="checkbox"/> API
300. COMPONENT SERIES		
<i>(select at least one if testing core services)</i>		
<input type="checkbox"/> 301. Electronic Components	<input type="checkbox"/> GUI	<input type="checkbox"/> API

Figure 3a - The services and modules checklist from the pre-qualification questionnaire

The core services of MoReq2010® must be tested as a whole. Along with the whole of the core services of MoReq2010® the supplier must also nominate at least one plug-in module from each of the **100. Interface Series**, the **200. Classification Series**, and the **300. Component Series**.

If an MCRS solution has been previously certified then it is possible to only test extra modules without re-testing the core services. This is described in **7. Testing extra modules individually**.

For each service or module being tested the supplier may nominate in the PQQ that it is to be tested through either a graphical user interface (GUI) and/or an application programming interface (API). It is possible for different services to have different interfaces. Where the supplier nominates the API option the supplier is responsible for the provision of a suitable test harness for the test centre to conduct testing (see **4.1 Providing a test harness for API interfaces**).

For the role service and the metadata service the solution may employ the model service described by MoReq2010® or alternatively it may use a native service instead. Where the supplier nominates a native service then the supplier is responsible for the provision of a suitable replacement test module, including test data and a test script containing equivalent test cases to the model test module (see **4.2 Agreeing a test script for native services**).

3.1.5 How to complete each section

Having completed the services and modules checklist in the PQQ the supplier must then provide answers to each of the relevant sections of the PQQ indicated by the completed entries in the checklist.

The supplier must complete all questions and must provide responses to all questions in both the functional and non-functional sections of the PQQ. Suppliers are encouraged where possible to provide screenshots in support of their text descriptions and explanations.

The supplier's response must provide evidence that:

- The supplier understands the requirement(s),
- The solution performs the required functionality, and
- The required functionality is accessible by users in the same consistent and coherent way as other functionality in the solution is also provided.

3.1.6 Which sections must be completed by the test centre?

The test centre must also complete those sections of the PQQ where the supplier has submitted responses. This is done later during testing when representatives from the test centre can observe the actual behaviour of the product described by the supplier.

The test centre must provide assurance that the description and screenshots provided by the supplier accurately describe the behaviour of the product when performing the relevant functions. The test centre also comments on how the functions are performed and any feedback they provide to the user.

Test centres are not required to evaluate supplier's responses to the non-functional sections of the PQQ.

3.2 Qualifying native services

Where the supplier's solution incorporates a native role service instead of a model role service, or a native metadata service instead of a model metadata service, the supplier must still provide responses to the functional requirements for these services in the PQQ.

The supplier must provide information on how the native service differs to the model service described by MoReq2010® and how the native service nevertheless provides equivalent functionality. A supplier whose solution implements native services should read

carefully those relevant sections of the MoReq2010® specification that describe how a native service can be shown to be equivalent to a model service.

Note that along with the PQQ the supplier must also provide a modified test script so that the native service can be tested (see **4.2 Agreeing a test script for native services**).

3.3 Evaluating the pre-qualification questionnaire

The test centre is responsible for evaluating and accepting the PQQ from the supplier prior to conducting any testing on the solution. The test centre must be sure that:

- The PQQ is complete and all relevant sections have been answered;
- The supplier's responses to the functional sections of the PQQ are informative and detailed enough to give a clear picture of how functionality is implemented;
- The information provided does not indicate anywhere that one or more of the requirements of MoReq2010® cannot be met (all requirements are mandatory);
- The supplier has responded appropriately to the non-functional sections of the PQQ; and
- Based on the information provided by the supplier in the PQQ the solution is a suitable candidate for MoReq2010® compliance testing.

The test centre must also forward the completed PQQ to the DLM Forum while giving advance notice of testing, so that it can be used to brief potential observers that the DLM Forum may choose to send.

4. Native services and interfaces

4.1 Providing a test harness for API interfaces

MoReq2010® makes provision for services and modules to be tested with either a graphical user interface (GUI) and/or an application programming interface (API). An API is essentially a specification for a series of methods that can be invoked by the incorporation of programming code in a client application using one or a number of development environments and languages. API interfaces are usually highly platform specific.

Where a supplier's solution includes provision of an API interface to one or more of its services or modules these must be tested by the test centre using the same test modules and test scripts as are used for testing solutions with GUI interfaces. The supplier must therefore provide the test centre with a test harness or client application in order for it to conduct and evaluate the test cases.

The complete set of documentation for the API interface and information about the proposed API test harness must be provided by the supplier to the test centre as part of qualification before any testing commences.

It is the responsibility of the test centre, informed by the supplier, to ensure that the test harness is making appropriate calls to the solution's API methods and routines and that the test harness is suitable and sufficient for conducting testing. As part of ensuring the fitness and sufficiency of the supplier's test harness for API testing the test centre may make any additional tests or compliance checks on the solution that it so requires.

4.2 Agreeing a test script for native services

Where a solution incorporates either a native role service or a native metadata service then the functionality these provide will be different to that of the equivalent model services of MoReq2010®. Because of this the native service will not be capable of being tested using the full test module for the equivalent model service (either **Test Module 2: Model roles** or **Test Module 4: Model metadata**).

Where this occurs the test centre and the supplier must agree on a suitably modified test script for the native service. The modified test script must retain those test cases that include preliminary and final checks on the external error log, compliance reporting and the final export of all test data. The intermediate test cases that check the functionality of the solution may be modified to better reflect the behaviour of the test system, provided this functionality is shown to be the equivalent of that described in MoReq2010®.

Any modified test modules for native services must be sent to the DLM Forum along with the PQQ for its own evaluation and the information of any observers attending testing. The test centre is also free to consult with the DLM Forum over whether any modified test modules provided by the supplier are suitable replacements for the originals, or whether additional equivalency tests must also be carried out.

4.3 Familiarisation

The test modules are designed so that they may be conducted in any order except for **Test Module 0: Familiarisation and training**. This test module is specifically designed to be conducted before any other test modules. It allows the test centre to engage with the supplier's solution and to understand it prior to running test scripts and formal test cases.

Despite this **Test Module 0** does play an important role in allowing the test centre to test and evaluate the interface options incorporated into the solution: GUI and/or API.

Test centres are also encouraged to document, in section **0.1.5** of **Test Module 0**, any issues found or significant or special behaviour observed during testing that may affect the compliance or functionality of the solution. This may include additional screenshots where the behaviour observed is different to that documented by the supplier in the PQQ.

5. Test procedures

5.1 Before a test

5.1.1 Test module design

Each test module is designed to be tested independently of the other test modules. Each test module has its own independent test data which should not conflict with the test data from any other test module if they are all loaded into the same test system together.

Each test module is designed as a single test script to be conducted in order from the first test case to the last test case within an individual test session. There should be no reconfiguration of the test system allowed during any test session.

During the testing of a test module, each test case must be attempted in order. If any test case fails then the whole test session must be abandoned. Individual test cases cannot be repeated and the precondition of each test case is the successful completion of the preceding test case.

5.1.2 Test location

- Testing of products may occur on supplier premises or test centre or at a mutually convenient facility
- Testing of installations always takes place on site.

5.1.3 Supplier's pre-test checklist

- The supplier is responsible for provision of the test system and ensuring that it is fully configured prior to testing
- The test system must always be configured for MoReq2010® compliance
- Where the test system uses an API a suitable test harness must be provided and previously agreed with the test centre
- Where the test to be conducted is for a native service a substitute test script must be provided and previously agreed with the test centre
- All of the test data for the test module must be loaded into the test system prior to commencement (the test data can be found in the appendix of each test module)
- The test system operator must be provided by the test centre and should not be a representative of the supplier
- The test system operator must have completed **Test Module 0: Familiarisation and training** with the solution in a previous session

5.2 During a test

5.2.1 Test procedures

The following procedures must be observed during testing:

- The test centre's test system operator must complete each test case from the test script contained in the test module, in order
- The outcome of each test case and any screenshots or other information required must be recorded before proceeding to the next test case

- The whole of the test script must be completed in a single session
- During the test session the test system (and test harness, if applicable) may not be reconfigured in any way, nor may additional data be added to the test system other than that specified by a particular test case
- If the test system reports any error or exception during testing then this must be recorded and cross checked against the test system's external error log following the completion (or abandonment) of the test session
- If a test case fails for any reason then the test session must be abandoned – no individual test case may be repeated or skipped (failure of a test case occurs when the post-conditions of the test case fail to be met)
- Where observers from the DLM Forum are present during testing then they must be given full access to the test system and permitted to make observations
- No testing should take place without representatives of the supplier and the test centre, as well as any DLM Forum observers, being present

5.2.2 Further testing

The test centre is not limited to just those test cases documented in the test modules. Following the successful completion of any formal test module the test centre is entitled to re-test any aspect of the test system, as it deems necessary. This may be for any reason including but not limited to:

- Ensuring that an observation made during testing was correctly recorded;
- Enabling the test centre to fulfil its obligations to complete the PQQ (see **3.1.6 Which sections must be completed by the test centre?**); or
- So as to investigate any perceived deviation in compliant behaviour.

5.3 After a test

5.3.1 Scrutiny of external error logs

All MoReq2010® test modules require in the first test case and the last test case, that the test centre take copies of the test system's external error log. This is required so that the test centre can compare the two error logs and determine whether any errors have occurred during testing. This comparison by the test centre can take place after the completion of the test session. It need not be conducted during the test session.

5.3.2 XML export datafiles

All test modules also call for the export of XML datafiles in MoReq2010® export format at the completion of testing. These XML datafiles contain various views of the test data following the completion of all test cases in the test module where they may be modified.

The test centre is required to scrutinise the XML export data to ensure that it is:

- Valid and well formed XML,
- Verified against the MoReq2010® XML schema,
- Accurate to the test data expected from the test case, and
- Contains valid UUID, timestamp and other data that shows that it does fully reflect the test data that was manipulated during the test session.

Provision of accurate XML export data at the completion of every test module is also applicable to the substitute test scripts for native services (see **4.2 Agreeing a test script for native services**). All test modules, whether for model services or native services, are required to provide fully compatible MoReq2010® export data that may be imported into another MCRS.

As with comparisons of the external error logs, the supplier may take the export datafiles away and validate them independently after the completion of the test session.

The DLM Forum requires that copies of all XML test datafiles from all tests be forwarded to it so that it can independently test them for compliance but also so that such test data can be used for research purposes, especially into interoperability of MCRS solutions.

5.3.3 Completion of all required sections

Following the completion of any test module the test centre is responsible for recording the outcomes, ensuring that the results are fully documented and for checking the adequacy of the supplier's responses to questions about the functionality of the solution in the PQQ.

5.4 Repeating a test

Where a test module is not successfully completed, then the test centre should attempt to determine the reason for its failure or abandonment. This may be a result of a relatively benign cause, such as incorrect system configuration or failure by the supplier to accurately input the test data prior to testing, through to more significant causes such as the fundamental failure of the test system to be able to perform the functions required of it.

Based on the outcome of its investigation of the causes of the failure the test centre must then decide whether to allow the supplier to simply retest the test module, or whether the solution must be taken away and fixed by the supplier and the whole of the test process recommenced again with **Test Module 0**.

Where the test centre allows a particular test module to be retested immediately, this must take place, and the integrity of the solution assured, before any of the other test modules are tested against the solution. The test centre cannot continue to test other test modules against the solution while the supplier is fixing the immediate problem.

6. Test reports

6.1 Completing the test report

6.1.1 Who is responsible?

It is the responsibility of the test centre under its accreditation agreement with the DLM Forum to complete the test report and recommendation before sending it to the DLM Forum's nominated representative for testing and certification. The DLM Forum will validate the report before issuing a letter of offer to the supplier and cannot make such an invitation unless all sections of the test report are completed to the DLM Forum's satisfaction.

6.1.2 Language of the report

Regardless of the country of origin of the test centre or of the test location, or of the native language of the solution, the test report must be completed in English.

The test centre and the supplier may choose to provide accompanying text for some or all of the test report in other languages other than English. Accompanying non-English text included in the test report may be of benefit to members of the DLM Forum who later read the test report (see **6.5 Accessing the test report for a certified solution**).

However, such accompanying text will not be validated, nor will it be taken into consideration by the DLM Forum in making its decision over whether or not to offer certification to the supplier.

Neither the English test in a MoReq2010® test report, nor the accompanying text in any other language, should ever contain anything that is likely to cause offense.

6.1.3 Test report completion checklist

- The test report is completed in English
- All sections from other documents have been included, specifically:
 - Supplier/solution information from the PQQ
 - Test centre information from the PQQ
 - Supplier's responses to functional sections of the PQQ
 - Test centre's assessment of supplier's functional responses from the PQQ
 - Supplier's responses to non-functional sections of the PQQ
 - Test centre's observations from Test Module 0: Familiarisation and training
 - Test centre's observation record and test case results from all test modules that were tested
- The test centre's overall assessment and recommendation has been included
- The supplier's comments in response to the test centre's assessment have been included
- The test report in its entirety is sent to the DLM Forum
- All of the export XML datafiles captured from the test system during testing are also sent to the DLM Forum
- The DLM Forum has acknowledged receipt of the test report

6.1.4 Export XML datafiles

The DLM Forum requires that all XML datafiles from all export test cases in the test modules must be sent to the DLM Forum along with the test centre's final test report. These may be used in verifying the test report and in checking that the test modules were correctly applied.

The DLM Forum also requires these XML datafiles for future work of the MoReq Governance Board in ensuring interoperability between different MCRS solutions, and in on going research into interoperability between MCRS solutions. As such, these XML datafiles are not bound by the same level of confidentiality as the test report itself and may be shared with third parties without the need for a non-disclosure agreement (see **6.5 Accessing the test report for a certified solution**).

6.2 Making a recommendation

6.2.1 Test centre's assessment

The test centre's observations must be made fairly and impartially. They must be complete and include any unusual or unexplained system behaviour observed during testing.

The test centre's responses to the supplier's PQQ must reflect the accuracy of the supplier's comments albeit within the necessarily narrow scope of the test centre's limited degree of user interaction and experience with the solution.

The test centre has a duty under the accreditation agreement to report any observed breach of compliance with MoReq2010® even when simply testing against an extra module. Section **0.1.5 of Test Module 0** allows the supplier to document, including with accompanying screenshots any behaviour of the test system that is at variance with the information submitted by the supplier.

It should be noted that all functional requirements of MoReq2010® are mandatory and the test centre should not make a positive recommendation unless all of the test cases have been met or exceeded.

6.2.2 Supplier's right of reply

Before the final test report is submitted to the DLM Forum, the supplier has a right of reply to the test centre's assessment and recommendation.

The supplier may not modify the test centre's own assessment in any way. However, it may provide its own assessment, additional explanatory text, screenshots or other information. Or, the supplier may simply use the opportunity to endorse the test centre's independent assessment and recommendation.

6.2.3 DLM Forum's decision to send a letter of offer

Regardless of the test centre's assessment and recommendation, and the supplier's right of reply, the DLM Forum does reserve the right to independently decide whether or not to send a letter of offer of certification to the supplier. However, in practice, it would be highly unlikely, following a full and complete validation of the test report, that the DLM Forum would not follow the recommendation of its accredited test centre, except in the most unusual of circumstances.

6.3 Dispute resolution

6.3.1 Disputes between the supplier and the test centre

The DLM Forum is not party to the test agreement between the supplier and the test centre. As such, any disputes between the supplier and the test centre should be resolved by invoking the dispute resolution process outlined in that agreement.

Both the supplier and the test centre should ensure that they have such a dispute resolution process in place before they start testing.

6.3.2 Disputes between the test centre and the DLM Forum

The accreditation agreement between test centres and the DLM Forum contains a documented dispute resolution procedure for any disputes that arise between them. This dispute resolution process is agreed as part of accreditation of the test centre.

6.3.3 Disputes between the supplier and the DLM Forum

It is possible that there may arise a dispute between a supplier and the DLM Forum directly. The resolution of such a dispute depends on its nature and how it arises. The letters of offer or rejection sent by the DLM Forum to suppliers will contain a suggested dispute resolution procedure should it be necessary.

Similarly the certification agreement between the supplier and the DLM Forum which includes within it the terms and conditions by which certificates are issued, and rights are conferred, will also contain a dispute resolution procedure. The rights conferred by the certification agreement include, for example, the right to display the MoReq2010® compliant records system logo alongside the supplier's certified solution.

6.4 Certificate scope and duration

6.4.1 Software suites

Each MoReq2010® certificate is issued against a single, readily identifiable, MCRS solution of a particular type (either COTS, site installation or cloud solution – see **3.1.2 Solution type**). A single certificate does not cover multiple products or services.

Some suppliers develop suites of software products that may share services within a common framework or architecture. For example, a supplier may offer several products each of which utilises the same underlying records system. Where this occurs the supplier may choose how to approach MoReq2010® certification.

One option, shown in **Figure 6a** is to test and certify each product in the suite separately as a MoReq2010® certified solution. In this option each product carries its own certificate of compliance and different products can be tested and certified at different times.

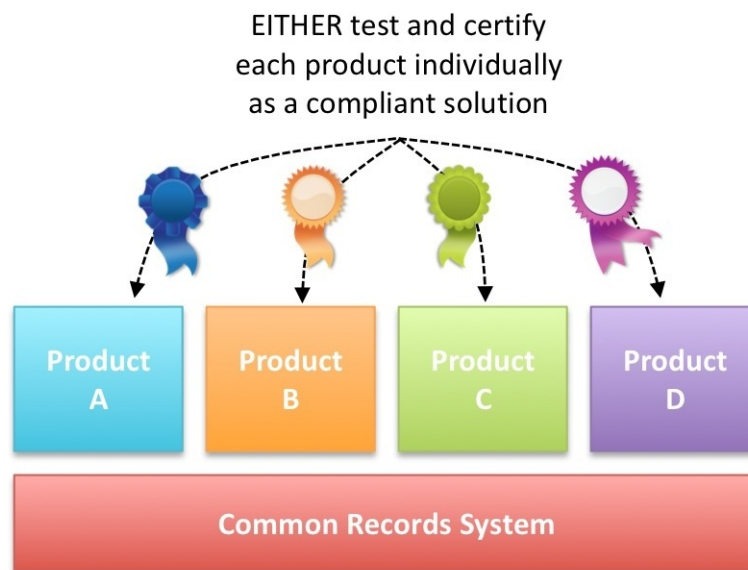


Figure 6a - Individual certification of each product in a suite

Another alternative is shown in **Figure 6b**. Here it is the shared underlying records system that is tested for MoReq2010® compliance and a single certificate is issued separately for this software component. This approach assumes that every product that uses the common records system does so using the same universal API interface. It also means that the supplier cannot advertise the products themselves as being MoReq2010® compliant, although, the supplier may instead choose to market the products as “making use of” a certified MoReq2010® compliant records system for their records management needs.

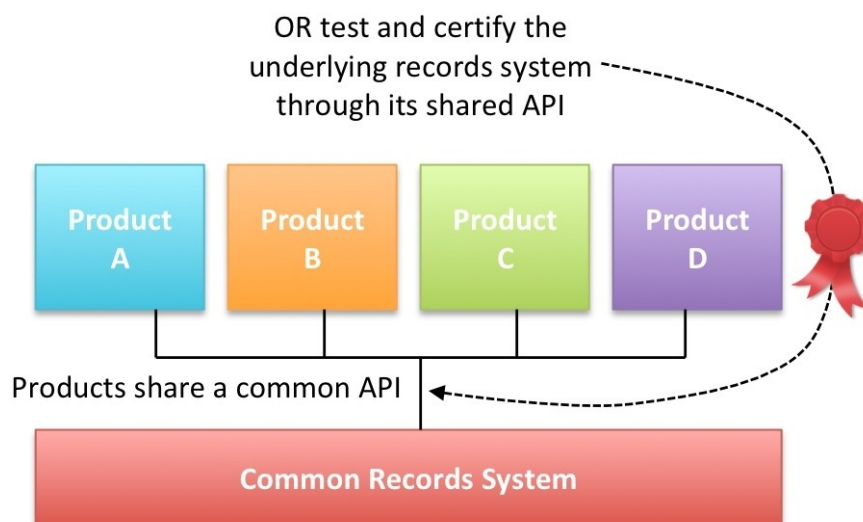


Figure 6b - Certification of the records system component underlying a suite

6.4.2 Major version of the MCRS solution

In 3.1.3 **Difference between major and minor versions**, the supplier is asked to indicate in the PPQ the major version number of its MCRS solution. This is because MoReq2010® certification only extends to a particular major version number of the solution. If the

supplier launches a new major version of the solution then this later release will not be covered by any previous MoReq2010® certificate issued to the supplier.

MoReq2010® certification is not carried over from one major version of a supplier's solution to another.

6.4.3 Major versions of MoReq2010®

Each service and each module of MoReq2010® has its own major and minor version numbers. For example, the User and Group Service is currently v1.0. When the DLM Forum issues revisions of the MoReq2010® specification it may choose to increment the major or minor version numbers of any of the services or modules.

It should be noted that it is the version of the service or module that is important here, **not** the version of the specification itself. It is entirely possible that a new version of MoReq2010® will not see any major changes to any one service or module within the specification.

It is expected that major revisions of services and modules in MoReq2010® will only occur when there are major changes in functionality, reflecting changes to the functional requirements or incompatible changes to the XML export format.

A MoReq2010® certificate will specify exactly which major versions of which services are certified. For example, a certificate issued today against the core services would list the:

- **User and Group Service v1.x**

In the hypothetical event that a new major version of the User and Group Service is released as part of a future version of MoReq2010® then the supplier may choose to be retested. An amended certificate might then read:

- **User and Group Service v1.x and v2.x**

This is covered by the same rules as for certification of extra modules (see 6.4.5 below).

6.4.4 Expiry of certification

As described above, MoReq2010® certification is limited to:

- A single solution,
- A specified major version of the solution, and
- A specified major version of each MoReq2010® service or module tested.

In addition to this, the DLM Forum also places a four year term on any certificate from the date of certification. In other words, if a particular solution is tested and certified in 2012 then to keep its certification current, it will be due to be retested and recertified in 2016, even if there are no new major versions to either the solution itself or to any of the services or modules covered by the solution.

6.4.5 Adding extra modules to a certificate

It is possible for a supplier to undertake the testing of extra modules for any previously certified solution. This is described in full in section 7. **Testing extra modules individually** and can also be used to individually test later major versions of core services as described in 6.4.3 above.

Where an extra module is tested individually then the DLM Forum will issue a new certificate to the supplier for the MCRS solution but in doing so, it will not extend the previous expiry date of the original certificate.

In other words, if a solution is tested in 2012 and an extra module is tested in 2014, then the amended certificate will still be due for expiry in 2016, when the whole of the MCRS solution will need to be retested, including the extra modules.

6.5 Accessing the test report for a certified solution

6.5.1 Who can access a successful test report?

The test report for a certified solution is a valuable procurement aid when selecting an MCRS solution. This is particularly important considering the range of possible solutions that may be certified under MoReq2010®. This is not limited to traditional EDRMS software but may extend to non-conventional and vertical market solutions. Under such circumstances the prospective consumer will want to refer to detailed independent information about the suitability of the solution.

For this reason, and for reasons of transparency, the DLM Forum makes the test reports for all certified solutions available as a service to its members (only). Such test reports are not made available to organisations or individuals outside the DLM Forum.

6.5.2 Non-disclosure

In order to access a successful test report, the DLM Forum member must enter into a non-disclosure agreement (NDA) with the DLM Forum. Under this legally binding contract the member must agree to the following:

- Not to share the test report in whole, in part or in summary with any other individual or organisation (even other members of the DLM Forum must sign their own NDA to access the test report),
- Not to place the test report in a public place or otherwise cause it to be made public,
- To keep the whole of the contents of the test report private and confidential, including neither summarising, quoting, drawing inference or otherwise passing any public comment or opinion on any of its contents, and
- To immediately destroy all copies of the test report held by the individual or organisation if the individual or organisation at any time ceases to be a member of the DLM Forum.

When completing the PQQ the supplier should take into consideration that the information provided in it may eventually be shared with other members of the DLM Forum and may even be used as one of the reasons for selecting the supplier's solution over a competitor.

6.5.3 Testing extra modules

As described in **7. Testing extra modules individually**, a supplier may decide to have extra MoReq2010® modules tested by an accredited test centre in order to expand the coverage of functionality offered by the supplier's previously certified MCRS solution. Where this additional testing is provided by an accredited test centre that did not conduct the previous testing of the MCRS solution, the test centre must apply to the DLM Forum for the MCRS solution's original test report and recommendation.

These will be forwarded to the accredited test centre by the DLM Forum, prior to the commencement of testing on any extra modules, so that they can be used by the new test centre during its evaluation of the extra modules being tested. It will be assumed that by entering into an agreement with a different accredited test centre to conduct additional testing of a previously certified solution, the supplier is in effect giving that test centre permission to access its previous test report and XML export datafiles.

6.5.4 Who can access an unsuccessful test report?

Unsuccessful test reports and successful test reports where the supplier does not proceed to undertake a certification agreement with the DLM Forum remain confidential at all times.

A copy of the report is held by the DLM Forum on file, however access to it is restricted to those individuals with a justifiable need to know. This may include impartial members of the accreditation, certification and testing panel of the MGB and possibly any independent examiners who are used by the DLM Forum to validate the test report.

7. Testing extra modules individually

7.1 Why test extra modules?

7.1.1 Extra modules

The MGB is committed to a roadmap that includes from time to time the addition of new plug-in and extension modules to the MoReq2010® specification. The functionality present in the specification will steadily grow over time. Before any extra modules are tested a solution must first be tested against the core services of MoReq2010®. At this time or any subsequent time the solution can additionally be tested against and of the MoReq2010® extra modules.

7.1.2 When to test

It is possible to test extra modules at the same time as the core services or at any later date while a certificate of compliance is in effect for the MCRS solution. As described in **6.4.5 Adding extra modules to a certificate** the addition of extra modules to a certificate of compliance will not extend beyond the original certificate expiry date.

7.1.3 Who can test?

Extra modules may be tested by the same test centre that originally tested the core services for the certified MCRS solution, or by any other accredited test centre. As described in **6.5.3 Testing extra modules** where the testing of extra modules is performed by a different accredited test centre, the DLM Forum will send the new test centre a copy of the original test report and all XML export datafiles prior to the commencement of testing of the extra modules.

7.2 How to test extra modules

7.2.1 Procedure for testing extra modules

Extra modules are tested in the same way as the core services.

- The supplier must first fill in a PQQ by completing only those sections which are applicable to the extra module(s) to be tested;
- The test centre evaluates the PQQ using both the information provided by the supplier in the PQQ and that contained in the original test report;
- When the test centre agrees a date for testing with the supplier it contacts the DLM Forum which always has the option to send observers to test sessions;
- During testing the test centre must always complete **Test Module 0: Familiarisation and training** before proceeding to test the extra modules;
- Other than **Test Module 0** there is no requirement to repeat any of the other test modules that have previously been successfully tested; and
- The test centre compiles the test report and recommendation and forwards these along with the supplier's responses to the DLM Forum.

It should be noted that under section **1.3.1 Materials included in the test framework** (above) the **Test Report and Recommendation For Extra Modules**, to be completed by the test centre when extra modules are tested individually, is a separate document to the **Test**

Report and Recommendation For Core Services, which is the normal test report that is prepared when extra modules are tested along with the core services.

7.2.2 Observed lack of compliance

During the individual testing of extra modules an accredited test centre may observe a lack of compliance in the MCRS solution that falls outside the strict scope of the extra modules being tested. This may occur whether or not the test centre was the same accredited test centre that originally tested the solution and its core services.

As part of the conditions of their accreditation the DLM Forum has empowered all of its MoReq2010® test centres to investigate and report back any observed lack of compliance in any solution they are testing, even for parts of the solution that are not the specific focus of their evaluation. Adherence to compliance across all of a certified solution is important not just for the purposes of evaluating a product in the test laboratory but also following its real world deployment to organisations and in their everyday use and experience of the MCRS solution. It is the supplier's responsibility under the certification agreement with the DLM Forum to ensure that once a product has been certified it remains compliant for the whole of its supported lifespan.



APPENDIX TO OVERVIEW AND INSTRUCTIONS

A. Mapping of functional requirements to test modules

The following table lists every MoReq2010® functional requirement and indicates which test module it is tested in. Some functional requirements are tested in more than one test module. All functional requirements are tested in at least one test module.

Functional requirement	From MoReq2010® chapter	Tested in test module(s)
R2.4.1	2. System Services	<ul style="list-style-type: none"> • Test Module 1: User and Group Service • Test Module 2: Model Role Service • Test Module 3: Record Service • Test Module 4: Model Metadata Service • Test Module 5: Disposal Services • Test Module 6: Searching and Reporting Service • Test Module 201: Hierarchical Classification • Test Module 301: Electronic Components
R2.4.2	2. System Services	<ul style="list-style-type: none"> • Test Module 1: User and Group Service • Test Module 2: Model Role Service • Test Module 3: Record Service • Test Module 4: Model Metadata Service • Test Module 5: Disposal Services • Test Module 6: Searching and Reporting Service • Test Module 201: Hierarchical Classification • Test Module 301: Electronic Components
R2.4.3	2. System Services	<ul style="list-style-type: none"> • Test Module 1: User and Group Service • Test Module 2: Model Role Service • Test Module 3: Record Service • Test Module 4: Model Metadata Service • Test Module 5: Disposal Services • Test Module 6: Searching and Reporting Service • Test Module 201: Hierarchical Classification • Test Module 301: Electronic Components

Functional requirement	From MoReq2010® chapter	Tested in test module(s)
R2.4.4	2. System Services	<ul style="list-style-type: none"> • Test Module 1: User and Group Service • Test Module 2: Model Role Service • Test Module 3: Record Service • Test Module 4: Model Metadata Service • Test Module 5: Disposal Services • Test Module 6: Searching and Reporting Service • Test Module 201: Hierarchical Classification • Test Module 301: Electronic Components
R2.4.5	2. System Services	<ul style="list-style-type: none"> • Test Module 1: User and Group Service • Test Module 2: Model Role Service • Test Module 3: Record Service • Test Module 4: Model Metadata Service • Test Module 5: Disposal Services • Test Module 6: Searching and Reporting Service • Test Module 201: Hierarchical Classification • Test Module 301: Electronic Components
R2.4.6	2. System Services	<ul style="list-style-type: none"> • Test Module 1: User and Group Service • Test Module 2: Model Role Service • Test Module 3: Record Service • Test Module 4: Model Metadata Service • Test Module 5: Disposal Services • Test Module 6: Searching and Reporting Service • Test Module 201: Hierarchical Classification • Test Module 301: Electronic Components

Functional requirement	From MoReq2010® chapter	Tested in test module(s)
R2.4.7	2. System Services	<ul style="list-style-type: none"> • Test Module 1: User and Group Service • Test Module 2: Model Role Service • Test Module 3: Record Service • Test Module 4: Model Metadata Service • Test Module 5: Disposal Services • Test Module 6: Searching and Reporting Service • Test Module 201: Hierarchical Classification • Test Module 301: Electronic Components
R2.4.8	2. System Services	<ul style="list-style-type: none"> • Test Module 1: User and Group Service • Test Module 2: Model Role Service • Test Module 3: Record Service • Test Module 4: Model Metadata Service • Test Module 5: Disposal Services • Test Module 6: Searching and Reporting Service • Test Module 201: Hierarchical Classification • Test Module 301: Electronic Components
R2.4.9	2. System Services	<ul style="list-style-type: none"> • Test Module 1: User and Group Service • Test Module 2: Model Role Service • Test Module 3: Record Service • Test Module 4: Model Metadata Service • Test Module 5: Disposal Services • Test Module 6: Searching and Reporting Service • Test Module 201: Hierarchical Classification • Test Module 301: Electronic Components

Functional requirement	From MoReq2010® chapter	Tested in test module(s)
R2.4.10	2. System Services	<ul style="list-style-type: none"> • Test Module 1: User and Group Service • Test Module 2: Model Role Service • Test Module 3: Record Service • Test Module 4: Model Metadata Service • Test Module 5: Disposal Services • Test Module 6: Searching and Reporting Service • Test Module 201: Hierarchical Classification • Test Module 301: Electronic Components
R2.4.11	2. System Services	<ul style="list-style-type: none"> • Test Module 1: User and Group Service • Test Module 2: Model Role Service • Test Module 3: Record Service • Test Module 4: Model Metadata Service • Test Module 5: Disposal Services • Test Module 6: Searching and Reporting Service • Test Module 201: Hierarchical Classification • Test Module 301: Electronic Components
R2.4.12	2. System Services	<ul style="list-style-type: none"> • Test Module 1: User and Group Service • Test Module 2: Model Role Service • Test Module 3: Record Service • Test Module 4: Model Metadata Service • Test Module 5: Disposal Services • Test Module 6: Searching and Reporting Service • Test Module 201: Hierarchical Classification • Test Module 301: Electronic Components

Functional requirement	From MoReq2010® chapter	Tested in test module(s)
R2.4.13	2. System Services	<ul style="list-style-type: none"> • Test Module 1: User and Group Service • Test Module 2: Model Role Service • Test Module 3: Record Service • Test Module 4: Model Metadata Service • Test Module 5: Disposal Services • Test Module 6: Searching and Reporting Service • Test Module 201: Hierarchical Classification • Test Module 301: Electronic Components
R2.4.14	2. System Services	<ul style="list-style-type: none"> • Test Module 1: User and Group Service • Test Module 2: Model Role Service • Test Module 3: Record Service • Test Module 4: Model Metadata Service • Test Module 5: Disposal Services • Test Module 6: Searching and Reporting Service • Test Module 201: Hierarchical Classification • Test Module 301: Electronic Components
R2.4.15	2. System Services	<ul style="list-style-type: none"> • Test Module 1: User and Group Service • Test Module 2: Model Role Service • Test Module 3: Record Service • Test Module 4: Model Metadata Service • Test Module 5: Disposal Services • Test Module 6: Searching and Reporting Service • Test Module 201: Hierarchical Classification • Test Module 301: Electronic Components

Functional requirement	From MoReq2010® chapter	Tested in test module(s)
R2.4.16	2. System Services	<ul style="list-style-type: none"> • Test Module 1: User and Group Service • Test Module 2: Model Role Service • Test Module 3: Record Service • Test Module 4: Model Metadata Service • Test Module 5: Disposal Services • Test Module 6: Searching and Reporting Service • Test Module 201: Hierarchical Classification • Test Module 301: Electronic Components
R2.4.17	2. System Services	<ul style="list-style-type: none"> • Test Module 1: User and Group Service • Test Module 2: Model Role Service • Test Module 3: Record Service • Test Module 4: Model Metadata Service • Test Module 5: Disposal Services • Test Module 6: Searching and Reporting Service • Test Module 201: Hierarchical Classification • Test Module 301: Electronic Components
R2.4.18	2. System Services	<ul style="list-style-type: none"> • Test Module 1: User and Group Service • Test Module 2: Model Role Service • Test Module 3: Record Service • Test Module 4: Model Metadata Service • Test Module 5: Disposal Services • Test Module 6: Searching and Reporting Service • Test Module 201: Hierarchical Classification • Test Module 301: Electronic Components

Functional requirement	From MoReq2010® chapter	Tested in test module(s)
R2.4.19	2. System Services	<ul style="list-style-type: none"> • Test Module 1: User and Group Service • Test Module 2: Model Role Service • Test Module 3: Record Service • Test Module 4: Model Metadata Service • Test Module 5: Disposal Services • Test Module 6: Searching and Reporting Service • Test Module 201: Hierarchical Classification • Test Module 301: Electronic Components
R2.4.20	2. System Services	<ul style="list-style-type: none"> • Test Module 1: User and Group Service • Test Module 2: Model Role Service • Test Module 3: Record Service • Test Module 4: Model Metadata Service • Test Module 5: Disposal Services • Test Module 6: Searching and Reporting Service • Test Module 201: Hierarchical Classification • Test Module 301: Electronic Components
R2.4.21	2. System Services	<ul style="list-style-type: none"> • Test Module 1: User and Group Service • Test Module 2: Model Role Service • Test Module 3: Record Service • Test Module 4: Model Metadata Service • Test Module 5: Disposal Services • Test Module 6: Searching and Reporting Service • Test Module 201: Hierarchical Classification • Test Module 301: Electronic Components

Functional requirement	From MoReq2010® chapter	Tested in test module(s)
R2.4.22	2. System Services	<ul style="list-style-type: none"> • Test Module 1: User and Group Service • Test Module 2: Model Role Service • Test Module 3: Record Service • Test Module 4: Model Metadata Service • Test Module 5: Disposal Services • Test Module 6: Searching and Reporting Service • Test Module 201: Hierarchical Classification • Test Module 301: Electronic Components
R2.4.23	2. System Services	<ul style="list-style-type: none"> • Test Module 1: User and Group Service • Test Module 2: Model Role Service • Test Module 3: Record Service • Test Module 4: Model Metadata Service • Test Module 5: Disposal Services • Test Module 6: Searching and Reporting Service • Test Module 201: Hierarchical Classification • Test Module 301: Electronic Components
R2.4.24	2. System Services	<ul style="list-style-type: none"> • Test Module 1: User and Group Service • Test Module 2: Model Role Service • Test Module 3: Record Service • Test Module 4: Model Metadata Service • Test Module 5: Disposal Services • Test Module 6: Searching and Reporting Service • Test Module 201: Hierarchical Classification • Test Module 301: Electronic Components

Functional requirement	From MoReq2010® chapter	Tested in test module(s)
R2.4.25	2. System Services	<ul style="list-style-type: none"> • Test Module 1: User and Group Service • Test Module 2: Model Role Service • Test Module 3: Record Service • Test Module 4: Model Metadata Service • Test Module 5: Disposal Services • Test Module 6: Searching and Reporting Service • Test Module 201: Hierarchical Classification • Test Module 301: Electronic Components
R2.4.26	2. System Services	<ul style="list-style-type: none"> • Test Module 1: User and Group Service • Test Module 2: Model Role Service • Test Module 3: Record Service • Test Module 4: Model Metadata Service • Test Module 5: Disposal Services • Test Module 6: Searching and Reporting Service • Test Module 201: Hierarchical Classification • Test Module 301: Electronic Components
R2.4.27	2. System Services	<ul style="list-style-type: none"> • Test Module 1: User and Group Service • Test Module 2: Model Role Service • Test Module 3: Record Service • Test Module 4: Model Metadata Service • Test Module 5: Disposal Services • Test Module 6: Searching and Reporting Service • Test Module 201: Hierarchical Classification • Test Module 301: Electronic Components

Functional requirement	From MoReq2010® chapter	Tested in test module(s)
R2.4.28	2. System Services	<ul style="list-style-type: none"> • Test Module 1: User and Group Service • Test Module 2: Model Role Service • Test Module 3: Record Service • Test Module 4: Model Metadata Service • Test Module 5: Disposal Services • Test Module 6: Searching and Reporting Service • Test Module 201: Hierarchical Classification • Test Module 301: Electronic Components
R3.4.1	3. User and Group Service	Test Module 1: User and Group Service
R3.4.2	3. User and Group Service	Test Module 1: User and Group Service
R3.4.3	3. User and Group Service	Test Module 1: User and Group Service
R3.4.4	3. User and Group Service	Test Module 1: User and Group Service
R3.4.5	3. User and Group Service	Test Module 1: User and Group Service
R3.4.6	3. User and Group Service	Test Module 1: User and Group Service
R3.4.7	3. User and Group Service	Test Module 1: User and Group Service
R3.4.8	3. User and Group Service	Test Module 1: User and Group Service
R3.4.9	3. User and Group Service	Test Module 1: User and Group Service
R3.4.10	3. User and Group Service	Test Module 1: User and Group Service
R3.4.11	3. User and Group Service	Test Module 1: User and Group Service
R3.4.12	3. User and Group Service	Test Module 1: User and Group Service
R3.4.13	3. User and Group Service	Test Module 1: User and Group Service
R3.4.14	3. User and Group Service	Test Module 1: User and Group Service
R4.5.1	4. Model Role Service	Test Module 2: Model Role Service
R4.5.2	4. Model Role Service	Test Module 2: Model Role Service
R4.5.3	4. Model Role Service	Test Module 2: Model Role Service

Functional requirement	From MoReq2010® chapter	Tested in test module(s)
R4.5.4	4. Model Role Service	Test Module 2: Model Role Service
R4.5.5	4. Model Role Service	Test Module 2: Model Role Service
R4.5.6	4. Model Role Service	Test Module 2: Model Role Service
R4.5.7	4. Model Role Service	Test Module 2: Model Role Service
R4.5.8	4. Model Role Service	Test Module 2: Model Role Service
R4.5.9	4. Model Role Service	Test Module 2: Model Role Service
R4.5.10	4. Model Role Service	Test Module 2: Model Role Service
R4.5.11	4. Model Role Service	Test Module 2: Model Role Service
R4.5.12	4. Model Role Service	Test Module 2: Model Role Service
R4.5.13	4. Model Role Service	Test Module 2: Model Role Service
R4.5.14	4. Model Role Service	Test Module 2: Model Role Service
R4.5.15	4. Model Role Service	Test Module 2: Model Role Service
R5.4.1	5. Classification Service	Test Module 201: Hierarchical Classification
R5.4.2	5. Classification Service	Test Module 201: Hierarchical Classification
R5.4.3	5. Classification Service	Test Module 201: Hierarchical Classification
R5.4.4	5. Classification Service	Test Module 201: Hierarchical Classification
R5.4.5	5. Classification Service	Test Module 201: Hierarchical Classification
R5.4.6	5. Classification Service	Test Module 201: Hierarchical Classification
R5.4.7	5. Classification Service	Test Module 201: Hierarchical Classification

Functional requirement	From MoReq2010® chapter	Tested in test module(s)
R5.4.8	5. Classification Service	Test Module 201: Hierarchical Classification
R6.5.1	6. Record Service	Test Module 3: Record Service
R6.5.2	6. Record Service	Test Module 3: Record Service
R6.5.3	6. Record Service	Test Module 3: Record Service
R6.5.4	6. Record Service	Test Module 3: Record Service
R6.5.5	6. Record Service	Test Module 3: Record Service
R6.5.6	6. Record Service	Test Module 3: Record Service
R6.5.7	6. Record Service	Test Module 3: Record Service
R6.5.8	6. Record Service	Test Module 3: Record Service
R6.5.9	6. Record Service	Test Module 3: Record Service
R6.5.10	6. Record Service	Test Module 3: Record Service
R6.5.11	6. Record Service	Test Module 3: Record Service
R6.5.12	6. Record Service	Test Module 3: Record Service
R6.5.13	6. Record Service	Test Module 3: Record Service
R6.5.14	6. Record Service	Test Module 3: Record Service
R6.5.15	6. Record Service	Test Module 3: Record Service
R6.5.16	6. Record Service	Test Module 3: Record Service
R6.5.17	6. Record Service	Test Module 3: Record Service
R6.5.18	6. Record Service	Test Module 3: Record Service
R6.5.19	6. Record Service	Test Module 3: Record Service
R6.5.20	6. Record Service	Test Module 3: Record Service
R6.5.21	6. Record Service	Test Module 3: Record Service
R7.5.1	7. Model Metadata Service	Test Module 4: Model Metadata Service

Functional requirement	From MoReq2010® chapter	Tested in test module(s)
R7.5.2	7. Model Metadata Service	Test Module 4: Model Metadata Service
R7.5.3	7. Model Metadata Service	Test Module 4: Model Metadata Service
R7.5.4	7. Model Metadata Service	Test Module 4: Model Metadata Service
R7.5.5	7. Model Metadata Service	Test Module 4: Model Metadata Service
R7.5.6	7. Model Metadata Service	Test Module 4: Model Metadata Service
R7.5.7	7. Model Metadata Service	Test Module 4: Model Metadata Service
R7.5.8	7. Model Metadata Service	Test Module 4: Model Metadata Service
R7.5.9	7. Model Metadata Service	Test Module 4: Model Metadata Service
R7.5.10	7. Model Metadata Service	Test Module 4: Model Metadata Service
R7.5.11	7. Model Metadata Service	Test Module 4: Model Metadata Service
R7.5.12	7. Model Metadata Service	Test Module 4: Model Metadata Service
R7.5.13	7. Model Metadata Service	Test Module 4: Model Metadata Service
R7.5.14	7. Model Metadata Service	Test Module 4: Model Metadata Service
R7.5.15	7. Model Metadata Service	Test Module 4: Model Metadata Service
R7.5.16	7. Model Metadata Service	Test Module 4: Model Metadata Service
R7.5.17	7. Model Metadata Service	Test Module 4: Model Metadata Service
R7.5.18	7. Model Metadata Service	Test Module 4: Model Metadata Service
R7.5.19	7. Model Metadata Service	Test Module 4: Model Metadata Service
R7.5.20	7. Model Metadata Service	Test Module 4: Model Metadata Service
R8.4.1	8. Disposal Scheduling Service	Test Module 5: Disposal Services
R8.4.2	8. Disposal Scheduling Service	Test Module 6: Disposal Services
R8.4.3	8. Disposal Scheduling Service	Test Module 5: Disposal Services

Functional requirement	From MoReq2010® chapter	Tested in test module(s)
R8.4.4	8. Disposal Scheduling Service	Test Module 5: Disposal Services
R8.4.5	8. Disposal Scheduling Service	Test Module 5: Disposal Services
R8.4.6	8. Disposal Scheduling Service	Test Module 5: Disposal Services
R8.4.7	8. Disposal Scheduling Service	Test Module 5: Disposal Services
R8.4.8	8. Disposal Scheduling Service	Test Module 5: Disposal Services
R8.4.9	8. Disposal Scheduling Service	Test Module 5: Disposal Services
R8.4.10	8. Disposal Scheduling Service	Test Module 5: Disposal Services
R8.4.11	8. Disposal Scheduling Service	Test Module 5: Disposal Services
R8.4.12	8. Disposal Scheduling Service	Test Module 5: Disposal Services
R8.4.13	8. Disposal Scheduling Service	Test Module 5: Disposal Services
R8.4.14	8. Disposal Scheduling Service	Test Module 5: Disposal Services
R8.4.15	8. Disposal Scheduling Service	Test Module 5: Disposal Services
R8.4.16	8. Disposal Scheduling Service	Test Module 5: Disposal Services
R8.4.17	8. Disposal Scheduling Service	Test Module 5: Disposal Services
R8.4.18	8. Disposal Scheduling Service	Test Module 5: Disposal Services

Functional requirement	From MoReq2010® chapter	Tested in test module(s)
R8.4.19	8. Disposal Scheduling Service	Test Module 5: Disposal Services
R8.4.20	8. Disposal Scheduling Service	Test Module 5: Disposal Services
R8.4.21	8. Disposal Scheduling Service	Test Module 5: Disposal Services
R8.4.22	8. Disposal Scheduling Service	Test Module 5: Disposal Services
R8.4.23	8. Disposal Scheduling Service	Test Module 5: Disposal Services
R8.4.24	8. Disposal Scheduling Service	Test Module 5: Disposal Services
R9.4.1	9. Disposal Holding Service	Test Module 5: Disposal Services
R9.4.2	9. Disposal Holding Service	Test Module 5: Disposal Services
R9.4.3	9. Disposal Holding Service	Test Module 5: Disposal Services
R9.4.4	9. Disposal Holding Service	Test Module 5: Disposal Services
R9.4.5	9. Disposal Holding Service	Test Module 5: Disposal Services
R9.4.6	9. Disposal Holding Service	Test Module 5: Disposal Services
R9.4.7	9. Disposal Holding Service	Test Module 5: Disposal Services
R10.4.1	10. Searching and Reporting Service	<ul style="list-style-type: none"> • Test Module 1: User and Group Service • Test Module 2: Model Role Service • Test Module 3: Record Service • Test Module 4: Model Metadata Service • Test Module 5: Disposal Services • Test Module 6: Searching and Reporting Service • Test Module 201: Hierarchical Classification • Test Module 301: Electronic Components

Functional requirement	From MoReq2010® chapter	Tested in test module(s)
R10.4.2	10. Searching and Reporting Service	<ul style="list-style-type: none"> • Test Module 1: User and Group Service • Test Module 2: Model Role Service • Test Module 3: Record Service • Test Module 4: Model Metadata Service • Test Module 5: Disposal Services • Test Module 6: Searching and Reporting Service • Test Module 201: Hierarchical Classification • Test Module 301: Electronic Components
R10.4.3	10. Searching and Reporting Service	<ul style="list-style-type: none"> • Test Module 1: User and Group Service • Test Module 2: Model Role Service • Test Module 3: Record Service • Test Module 4: Model Metadata Service • Test Module 5: Disposal Services • Test Module 6: Searching and Reporting Service • Test Module 201: Hierarchical Classification • Test Module 301: Electronic Components
R10.4.4	10. Searching and Reporting Service	<ul style="list-style-type: none"> • Test Module 1: User and Group Service • Test Module 2: Model Role Service • Test Module 3: Record Service • Test Module 4: Model Metadata Service • Test Module 5: Disposal Services • Test Module 6: Searching and Reporting Service • Test Module 201: Hierarchical Classification • Test Module 301: Electronic Components

Functional requirement	From MoReq2010® chapter	Tested in test module(s)
R10.4.5	10. Searching and Reporting Service	<ul style="list-style-type: none"> • Test Module 1: User and Group Service • Test Module 2: Model Role Service • Test Module 3: Record Service • Test Module 4: Model Metadata Service • Test Module 5: Disposal Services • Test Module 6: Searching and Reporting Service • Test Module 201: Hierarchical Classification • Test Module 301: Electronic Components
R10.4.6	10. Searching and Reporting Service	<ul style="list-style-type: none"> • Test Module 1: User and Group Service • Test Module 2: Model Role Service • Test Module 3: Record Service • Test Module 4: Model Metadata Service • Test Module 5: Disposal Services • Test Module 6: Searching and Reporting Service • Test Module 201: Hierarchical Classification • Test Module 301: Electronic Components
R10.4.7	10. Searching and Reporting Service	<ul style="list-style-type: none"> • Test Module 1: User and Group Service • Test Module 2: Model Role Service • Test Module 3: Record Service • Test Module 4: Model Metadata Service • Test Module 5: Disposal Services • Test Module 6: Searching and Reporting Service • Test Module 201: Hierarchical Classification • Test Module 301: Electronic Components

Functional requirement	From MoReq2010® chapter	Tested in test module(s)
R10.4.8	10. Searching and Reporting Service	<ul style="list-style-type: none"> • Test Module 1: User and Group Service • Test Module 2: Model Role Service • Test Module 3: Record Service • Test Module 4: Model Metadata Service • Test Module 5: Disposal Services • Test Module 6: Searching and Reporting Service • Test Module 201: Hierarchical Classification • Test Module 301: Electronic Components
R10.4.9	10. Searching and Reporting Service	<ul style="list-style-type: none"> • Test Module 1: User and Group Service • Test Module 2: Model Role Service • Test Module 3: Record Service • Test Module 4: Model Metadata Service • Test Module 5: Disposal Services • Test Module 6: Searching and Reporting Service • Test Module 201: Hierarchical Classification • Test Module 301: Electronic Components
R10.4.10	10. Searching and Reporting Service	<ul style="list-style-type: none"> • Test Module 1: User and Group Service • Test Module 2: Model Role Service • Test Module 3: Record Service • Test Module 4: Model Metadata Service • Test Module 5: Disposal Services • Test Module 6: Searching and Reporting Service • Test Module 201: Hierarchical Classification • Test Module 301: Electronic Components

Functional requirement	From MoReq2010® chapter	Tested in test module(s)
R10.4.11	10. Searching and Reporting Service	<ul style="list-style-type: none"> • Test Module 1: User and Group Service • Test Module 2: Model Role Service • Test Module 3: Record Service • Test Module 4: Model Metadata Service • Test Module 5: Disposal Services • Test Module 6: Searching and Reporting Service • Test Module 201: Hierarchical Classification • Test Module 301: Electronic Components
R10.4.12	10. Searching and Reporting Service	<ul style="list-style-type: none"> • Test Module 1: User and Group Service • Test Module 2: Model Role Service • Test Module 3: Record Service • Test Module 4: Model Metadata Service • Test Module 5: Disposal Services • Test Module 6: Searching and Reporting Service • Test Module 201: Hierarchical Classification • Test Module 301: Electronic Components
R10.4.13	10. Searching and Reporting Service	<ul style="list-style-type: none"> • Test Module 1: User and Group Service • Test Module 2: Model Role Service • Test Module 3: Record Service • Test Module 4: Model Metadata Service • Test Module 5: Disposal Services • Test Module 6: Searching and Reporting Service • Test Module 201: Hierarchical Classification • Test Module 301: Electronic Components

Functional requirement	From MoReq2010® chapter	Tested in test module(s)
R10.4.14	10. Searching and Reporting Service	<ul style="list-style-type: none"> • Test Module 1: User and Group Service • Test Module 2: Model Role Service • Test Module 3: Record Service • Test Module 4: Model Metadata Service • Test Module 5: Disposal Services • Test Module 6: Searching and Reporting Service • Test Module 201: Hierarchical Classification • Test Module 301: Electronic Components
R10.4.15	10. Searching and Reporting Service	<ul style="list-style-type: none"> • Test Module 1: User and Group Service • Test Module 2: Model Role Service • Test Module 3: Record Service • Test Module 4: Model Metadata Service • Test Module 5: Disposal Services • Test Module 6: Searching and Reporting Service • Test Module 201: Hierarchical Classification • Test Module 301: Electronic Components
R10.4.16	10. Searching and Reporting Service	<ul style="list-style-type: none"> • Test Module 1: User and Group Service • Test Module 2: Model Role Service • Test Module 3: Record Service • Test Module 4: Model Metadata Service • Test Module 5: Disposal Services • Test Module 6: Searching and Reporting Service • Test Module 201: Hierarchical Classification • Test Module 301: Electronic Components

Functional requirement	From MoReq2010® chapter	Tested in test module(s)
R10.4.17	10. Searching and Reporting Service	<ul style="list-style-type: none"> • Test Module 1: User and Group Service • Test Module 2: Model Role Service • Test Module 3: Record Service • Test Module 4: Model Metadata Service • Test Module 5: Disposal Services • Test Module 6: Searching and Reporting Service • Test Module 201: Hierarchical Classification • Test Module 301: Electronic Components
R10.4.18	10. Searching and Reporting Service	<ul style="list-style-type: none"> • Test Module 1: User and Group Service • Test Module 2: Model Role Service • Test Module 3: Record Service • Test Module 4: Model Metadata Service • Test Module 5: Disposal Services • Test Module 6: Searching and Reporting Service • Test Module 201: Hierarchical Classification • Test Module 301: Electronic Components
R10.4.19	10. Searching and Reporting Service	<ul style="list-style-type: none"> • Test Module 1: User and Group Service • Test Module 2: Model Role Service • Test Module 3: Record Service • Test Module 4: Model Metadata Service • Test Module 5: Disposal Services • Test Module 6: Searching and Reporting Service • Test Module 201: Hierarchical Classification • Test Module 301: Electronic Components

Functional requirement	From MoReq2010® chapter	Tested in test module(s)
R10.4.20	10. Searching and Reporting Service	<ul style="list-style-type: none"> • Test Module 1: User and Group Service • Test Module 2: Model Role Service • Test Module 3: Record Service • Test Module 4: Model Metadata Service • Test Module 5: Disposal Services • Test Module 6: Searching and Reporting Service • Test Module 201: Hierarchical Classification • Test Module 301: Electronic Components
R10.4.21	10. Searching and Reporting Service	<ul style="list-style-type: none"> • Test Module 1: User and Group Service • Test Module 2: Model Role Service • Test Module 3: Record Service • Test Module 4: Model Metadata Service • Test Module 5: Disposal Services • Test Module 6: Searching and Reporting Service • Test Module 201: Hierarchical Classification • Test Module 301: Electronic Components
R10.4.22	10. Searching and Reporting Service	<ul style="list-style-type: none"> • Test Module 1: User and Group Service • Test Module 2: Model Role Service • Test Module 3: Record Service • Test Module 4: Model Metadata Service • Test Module 5: Disposal Services • Test Module 6: Searching and Reporting Service • Test Module 201: Hierarchical Classification • Test Module 301: Electronic Components
R10.4.23	10. Searching and Reporting Service	Test Module 6: Searching and Reporting Service
R10.4.24	10. Searching and Reporting Service	Test Module 6: Searching and Reporting Service

Functional requirement	From MoReq2010® chapter	Tested in test module(s)
R10.4.25	10. Searching and Reporting Service	Test Module 6: Searching and Reporting Service
R10.4.26	10. Searching and Reporting Service	Test Module 6: Searching and Reporting Service
R10.4.27	10. Searching and Reporting Service	Test Module 6: Searching and Reporting Service
R11.4.1	11. Export Service	<ul style="list-style-type: none"> • Test Module 1: User and Group Service • Test Module 2: Model Role Service • Test Module 3: Record Service • Test Module 4: Model Metadata Service • Test Module 5: Disposal Services • Test Module 6: Searching and Reporting Service • Test Module 201: Hierarchical Classification • Test Module 301: Electronic Components
R11.4.2	11. Export Service	<ul style="list-style-type: none"> • Test Module 1: User and Group Service • Test Module 2: Model Role Service • Test Module 3: Record Service • Test Module 4: Model Metadata Service • Test Module 5: Disposal Services • Test Module 6: Searching and Reporting Service • Test Module 201: Hierarchical Classification • Test Module 301: Electronic Components

Functional requirement	From MoReq2010® chapter	Tested in test module(s)
R11.4.3	11. Export Service	<ul style="list-style-type: none"> • Test Module 1: User and Group Service • Test Module 2: Model Role Service • Test Module 3: Record Service • Test Module 4: Model Metadata Service • Test Module 5: Disposal Services • Test Module 6: Searching and Reporting Service • Test Module 201: Hierarchical Classification • Test Module 301: Electronic Components
R11.4.4	11. Export Service	<ul style="list-style-type: none"> • Test Module 1: User and Group Service • Test Module 2: Model Role Service • Test Module 3: Record Service • Test Module 4: Model Metadata Service • Test Module 5: Disposal Services • Test Module 6: Searching and Reporting Service • Test Module 201: Hierarchical Classification • Test Module 301: Electronic Components
R11.4.5	11. Export Service	<ul style="list-style-type: none"> • Test Module 1: User and Group Service • Test Module 2: Model Role Service • Test Module 3: Record Service • Test Module 4: Model Metadata Service • Test Module 5: Disposal Services • Test Module 6: Searching and Reporting Service • Test Module 201: Hierarchical Classification • Test Module 301: Electronic Components

Functional requirement	From MoReq2010® chapter	Tested in test module(s)
R11.4.6	11. Export Service	<ul style="list-style-type: none"> • Test Module 1: User and Group Service • Test Module 2: Model Role Service • Test Module 3: Record Service • Test Module 4: Model Metadata Service • Test Module 5: Disposal Services • Test Module 6: Searching and Reporting Service • Test Module 201: Hierarchical Classification • Test Module 301: Electronic Components
R11.4.7	11. Export Service	<ul style="list-style-type: none"> • Test Module 1: User and Group Service • Test Module 2: Model Role Service • Test Module 3: Record Service • Test Module 4: Model Metadata Service • Test Module 5: Disposal Services • Test Module 6: Searching and Reporting Service • Test Module 201: Hierarchical Classification • Test Module 301: Electronic Components
R11.4.8	11. Export Service	<ul style="list-style-type: none"> • Test Module 1: User and Group Service • Test Module 2: Model Role Service • Test Module 3: Record Service • Test Module 4: Model Metadata Service • Test Module 5: Disposal Services • Test Module 6: Searching and Reporting Service • Test Module 201: Hierarchical Classification • Test Module 301: Electronic Components

Functional requirement	From MoReq2010® chapter	Tested in test module(s)
R11.4.9	11. Export Service	<ul style="list-style-type: none"> • Test Module 1: User and Group Service • Test Module 2: Model Role Service • Test Module 3: Record Service • Test Module 4: Model Metadata Service • Test Module 5: Disposal Services • Test Module 6: Searching and Reporting Service • Test Module 201: Hierarchical Classification • Test Module 301: Electronic Components
R11.4.10	11. Export Service	<ul style="list-style-type: none"> • Test Module 1: User and Group Service • Test Module 2: Model Role Service • Test Module 3: Record Service • Test Module 4: Model Metadata Service • Test Module 5: Disposal Services • Test Module 6: Searching and Reporting Service • Test Module 201: Hierarchical Classification • Test Module 301: Electronic Components
R101.4.1	101. Graphical User Interface (GUI)	<ul style="list-style-type: none"> • Test Module 1: User and Group Service • Test Module 2: Model Role Service • Test Module 3: Record Service • Test Module 4: Model Metadata Service • Test Module 5: Disposal Services • Test Module 6: Searching and Reporting Service • Test Module 201: Hierarchical Classification • Test Module 301: Electronic Components

Functional requirement	From MoReq2010® chapter	Tested in test module(s)
R101.4.2	101. Graphical User Interface (GUI)	<ul style="list-style-type: none"> • Test Module 1: User and Group Service • Test Module 2: Model Role Service • Test Module 3: Record Service • Test Module 4: Model Metadata Service • Test Module 5: Disposal Services • Test Module 6: Searching and Reporting Service • Test Module 201: Hierarchical Classification • Test Module 301: Electronic Components
R101.4.3	101. Graphical User Interface (GUI)	<ul style="list-style-type: none"> • Test Module 1: User and Group Service • Test Module 2: Model Role Service • Test Module 3: Record Service • Test Module 4: Model Metadata Service • Test Module 5: Disposal Services • Test Module 6: Searching and Reporting Service • Test Module 201: Hierarchical Classification • Test Module 301: Electronic Components
R101.4.4	101. Graphical User Interface (GUI)	<ul style="list-style-type: none"> • Test Module 1: User and Group Service • Test Module 2: Model Role Service • Test Module 3: Record Service • Test Module 4: Model Metadata Service • Test Module 5: Disposal Services • Test Module 6: Searching and Reporting Service • Test Module 201: Hierarchical Classification • Test Module 301: Electronic Components

Functional requirement	From MoReq2010® chapter	Tested in test module(s)
R101.4.5	101. Graphical User Interface (GUI)	<ul style="list-style-type: none"> • Test Module 1: User and Group Service • Test Module 2: Model Role Service • Test Module 3: Record Service • Test Module 4: Model Metadata Service • Test Module 5: Disposal Services • Test Module 6: Searching and Reporting Service • Test Module 201: Hierarchical Classification • Test Module 301: Electronic Components
R101.4.6	101. Graphical User Interface (GUI)	<ul style="list-style-type: none"> • Test Module 1: User and Group Service • Test Module 2: Model Role Service • Test Module 3: Record Service • Test Module 4: Model Metadata Service • Test Module 5: Disposal Services • Test Module 6: Searching and Reporting Service • Test Module 201: Hierarchical Classification • Test Module 301: Electronic Components
R101.4.7	101. Graphical User Interface (GUI)	<ul style="list-style-type: none"> • Test Module 1: User and Group Service • Test Module 2: Model Role Service • Test Module 3: Record Service • Test Module 4: Model Metadata Service • Test Module 5: Disposal Services • Test Module 6: Searching and Reporting Service • Test Module 201: Hierarchical Classification • Test Module 301: Electronic Components

Functional requirement	From MoReq2010® chapter	Tested in test module(s)
R101.4.8	101. Graphical User Interface (GUI)	<ul style="list-style-type: none"> • Test Module 1: User and Group Service • Test Module 2: Model Role Service • Test Module 3: Record Service • Test Module 4: Model Metadata Service • Test Module 5: Disposal Services • Test Module 6: Searching and Reporting Service • Test Module 201: Hierarchical Classification • Test Module 301: Electronic Components
R101.4.9	101. Graphical User Interface (GUI)	<ul style="list-style-type: none"> • Test Module 1: User and Group Service • Test Module 2: Model Role Service • Test Module 3: Record Service • Test Module 4: Model Metadata Service • Test Module 5: Disposal Services • Test Module 6: Searching and Reporting Service • Test Module 201: Hierarchical Classification • Test Module 301: Electronic Components
R101.4.10	101. Graphical User Interface (GUI)	<ul style="list-style-type: none"> • Test Module 1: User and Group Service • Test Module 2: Model Role Service • Test Module 3: Record Service • Test Module 4: Model Metadata Service • Test Module 5: Disposal Services • Test Module 6: Searching and Reporting Service • Test Module 201: Hierarchical Classification • Test Module 301: Electronic Components

Functional requirement	From MoReq2010® chapter	Tested in test module(s)
R101.4.11	101. Graphical User Interface (GUI)	<ul style="list-style-type: none"> • Test Module 1: User and Group Service • Test Module 2: Model Role Service • Test Module 3: Record Service • Test Module 4: Model Metadata Service • Test Module 5: Disposal Services • Test Module 6: Searching and Reporting Service • Test Module 201: Hierarchical Classification • Test Module 301: Electronic Components
R101.4.12	101. Graphical User Interface (GUI)	<ul style="list-style-type: none"> • Test Module 1: User and Group Service • Test Module 2: Model Role Service • Test Module 3: Record Service • Test Module 4: Model Metadata Service • Test Module 5: Disposal Services • Test Module 6: Searching and Reporting Service • Test Module 201: Hierarchical Classification • Test Module 301: Electronic Components
R101.4.13	101. Graphical User Interface (GUI)	<ul style="list-style-type: none"> • Test Module 1: User and Group Service • Test Module 2: Model Role Service • Test Module 3: Record Service • Test Module 4: Model Metadata Service • Test Module 5: Disposal Services • Test Module 6: Searching and Reporting Service • Test Module 201: Hierarchical Classification • Test Module 301: Electronic Components

Functional requirement	From MoReq2010® chapter	Tested in test module(s)
R101.4.14	101. Graphical User Interface (GUI)	<ul style="list-style-type: none"> • Test Module 1: User and Group Service • Test Module 2: Model Role Service • Test Module 3: Record Service • Test Module 4: Model Metadata Service • Test Module 5: Disposal Services • Test Module 6: Searching and Reporting Service • Test Module 201: Hierarchical Classification • Test Module 301: Electronic Components
R101.4.15	101. Graphical User Interface (GUI)	<ul style="list-style-type: none"> • Test Module 1: User and Group Service • Test Module 2: Model Role Service • Test Module 3: Record Service • Test Module 4: Model Metadata Service • Test Module 5: Disposal Services • Test Module 6: Searching and Reporting Service • Test Module 201: Hierarchical Classification • Test Module 301: Electronic Components
R101.4.16	101. Graphical User Interface (GUI)	<ul style="list-style-type: none"> • Test Module 1: User and Group Service • Test Module 2: Model Role Service • Test Module 3: Record Service • Test Module 4: Model Metadata Service • Test Module 5: Disposal Services • Test Module 6: Searching and Reporting Service • Test Module 201: Hierarchical Classification • Test Module 301: Electronic Components

Functional requirement	From MoReq2010® chapter	Tested in test module(s)
R101.4.17	101. Graphical User Interface (GUI)	<ul style="list-style-type: none"> • Test Module 1: User and Group Service • Test Module 2: Model Role Service • Test Module 3: Record Service • Test Module 4: Model Metadata Service • Test Module 5: Disposal Services • Test Module 6: Searching and Reporting Service • Test Module 201: Hierarchical Classification • Test Module 301: Electronic Components
R101.4.18	101. Graphical User Interface (GUI)	<ul style="list-style-type: none"> • Test Module 1: User and Group Service • Test Module 2: Model Role Service • Test Module 3: Record Service • Test Module 4: Model Metadata Service • Test Module 5: Disposal Services • Test Module 6: Searching and Reporting Service • Test Module 201: Hierarchical Classification • Test Module 301: Electronic Components
R101.4.19	101. Graphical User Interface (GUI)	<ul style="list-style-type: none"> • Test Module 1: User and Group Service • Test Module 2: Model Role Service • Test Module 3: Record Service • Test Module 4: Model Metadata Service • Test Module 5: Disposal Services • Test Module 6: Searching and Reporting Service • Test Module 201: Hierarchical Classification • Test Module 301: Electronic Components

Functional requirement	From MoReq2010® chapter	Tested in test module(s)
R101.4.20	101. Graphical User Interface (GUI)	<ul style="list-style-type: none"> • Test Module 1: User and Group Service • Test Module 2: Model Role Service • Test Module 3: Record Service • Test Module 4: Model Metadata Service • Test Module 5: Disposal Services • Test Module 6: Searching and Reporting Service • Test Module 201: Hierarchical Classification • Test Module 301: Electronic Components
R101.4.21	101. Graphical User Interface (GUI)	<ul style="list-style-type: none"> • Test Module 1: User and Group Service • Test Module 2: Model Role Service • Test Module 3: Record Service • Test Module 4: Model Metadata Service • Test Module 5: Disposal Services • Test Module 6: Searching and Reporting Service • Test Module 201: Hierarchical Classification • Test Module 301: Electronic Components
R101.4.22	101. Graphical User Interface (GUI)	<ul style="list-style-type: none"> • Test Module 1: User and Group Service • Test Module 2: Model Role Service • Test Module 3: Record Service • Test Module 4: Model Metadata Service • Test Module 5: Disposal Services • Test Module 6: Searching and Reporting Service • Test Module 201: Hierarchical Classification • Test Module 301: Electronic Components

Functional requirement	From MoReq2010® chapter	Tested in test module(s)
R102.4.1	102. Application Programming Interface (API)	<ul style="list-style-type: none"> • Test Module 1: User and Group Service • Test Module 2: Model Role Service • Test Module 3: Record Service • Test Module 4: Model Metadata Service • Test Module 5: Disposal Services • Test Module 6: Searching and Reporting Service • Test Module 201: Hierarchical Classification • Test Module 301: Electronic Components
R102.4.2	102. Application Programming Interface (API)	<ul style="list-style-type: none"> • Test Module 1: User and Group Service • Test Module 2: Model Role Service • Test Module 3: Record Service • Test Module 4: Model Metadata Service • Test Module 5: Disposal Services • Test Module 6: Searching and Reporting Service • Test Module 201: Hierarchical Classification • Test Module 301: Electronic Components
R102.4.3	102. Application Programming Interface (API)	<ul style="list-style-type: none"> • Test Module 1: User and Group Service • Test Module 2: Model Role Service • Test Module 3: Record Service • Test Module 4: Model Metadata Service • Test Module 5: Disposal Services • Test Module 6: Searching and Reporting Service • Test Module 201: Hierarchical Classification • Test Module 301: Electronic Components

Functional requirement	From MoReq2010® chapter	Tested in test module(s)
R102.4.4	102. Application Programming Interface (API)	<ul style="list-style-type: none"> • Test Module 1: User and Group Service • Test Module 2: Model Role Service • Test Module 3: Record Service • Test Module 4: Model Metadata Service • Test Module 5: Disposal Services • Test Module 6: Searching and Reporting Service • Test Module 201: Hierarchical Classification • Test Module 301: Electronic Components
R102.4.5	102. Application Programming Interface (API)	<ul style="list-style-type: none"> • Test Module 1: User and Group Service • Test Module 2: Model Role Service • Test Module 3: Record Service • Test Module 4: Model Metadata Service • Test Module 5: Disposal Services • Test Module 6: Searching and Reporting Service • Test Module 201: Hierarchical Classification • Test Module 301: Electronic Components
R102.4.6	102. Application Programming Interface (API)	<ul style="list-style-type: none"> • Test Module 1: User and Group Service • Test Module 2: Model Role Service • Test Module 3: Record Service • Test Module 4: Model Metadata Service • Test Module 5: Disposal Services • Test Module 6: Searching and Reporting Service • Test Module 201: Hierarchical Classification • Test Module 301: Electronic Components
R201.4.1	201. Hierarchical Classification	Test Module 201: Hierarchical Classification
R201.4.2	201. Hierarchical Classification	Test Module 201: Hierarchical Classification

Functional requirement	From MoReq2010® chapter	Tested in test module(s)
R201.4.3	201. Hierarchical Classification	Test Module 201: Hierarchical Classification
R201.4.4	201. Hierarchical Classification	Test Module 201: Hierarchical Classification
R201.4.5	201. Hierarchical Classification	Test Module 201: Hierarchical Classification
R201.4.6	201. Hierarchical Classification	Test Module 201: Hierarchical Classification
R201.4.7	201. Hierarchical Classification	Test Module 201: Hierarchical Classification
R201.4.8	201. Hierarchical Classification	Test Module 201: Hierarchical Classification
R201.4.9	201. Hierarchical Classification	Test Module 201: Hierarchical Classification
R201.4.10	201. Hierarchical Classification	Test Module 201: Hierarchical Classification
R201.4.11	201. Hierarchical Classification	Test Module 201: Hierarchical Classification
R201.4.12	201. Hierarchical Classification	Test Module 201: Hierarchical Classification
R201.4.13	201. Hierarchical Classification	Test Module 201: Hierarchical Classification
R201.4.14	201. Hierarchical Classification	Test Module 201: Hierarchical Classification
R201.4.15	201. Hierarchical Classification	Test Module 201: Hierarchical Classification
R201.4.16	201. Hierarchical Classification	Test Module 201: Hierarchical Classification
R301.4.1	301. Electronic Components	Test Module 301: Electronic Components
R301.4.2	301. Electronic Components	Test Module 301: Electronic Components

Functional requirement	From MoReq2010® chapter	Tested in test module(s)
R301.4.3	301. Electronic Components	Test Module 301: Electronic Components
R301.4.4	301. Electronic Components	Test Module 301: Electronic Components
R301.4.5	301. Electronic Components	Test Module 301: Electronic Components
R301.4.6	301. Electronic Components	Test Module 301: Electronic Components
R301.4.7	301. Electronic Components	Test Module 301: Electronic Components
R301.4.8	301. Electronic Components	Test Module 301: Electronic Components
R301.4.9	301. Electronic Components	Test Module 301: Electronic Components