ELECTRONIC RECORDS MANAGEMENT SYSTEM COMPLIANCE TEST AND EVALUATION PROCESS AND PROCEDURES

NATIONAL ARCHIVES OF MALAYSIA
2009

VERSION 1

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1.   INTRODUCTION

1.1   PURPOSE

This document describes the Electronic Records Management System (ERMS) Compliance Test and Evaluation (CTE) Process and Procedures. It has been adapted from the *Defense Information Systems Agency, Joint Interoperability Test Command, Records Management Application Compliance Test And Evaluation Process And Procedures, July 2008*.

This document describes the procedures and steps for requesting compliance test and evaluation of products under the Electronic Records Management System (ERMS) System Specifications for Public Offices (hereafter referred to as System Spec). It also describes the testing policies, and defines the roles and responsibilities of participating organizations.

1.2   APPLICABILITY

The System Spec was issued by the National Archives of Malaysia

The System Spec sets forth mandatory baseline functional requirements for Electronic Records Management software used by Public Agencies in Malaysia in the implementation of their records management programs. It defines required system interfaces and search criteria to be supported by the applications, and describes the minimum records management requirements that must be met.

All records management software applications acquired or used by Public Agencies in Malaysia must meet the mandatory requirements defined in the System Spec. to enable:
   a) records created in these applications to have all the necessary features of an electronic record as required by local and international record keeping standards:
   b) records in those applications to be used as irrefutable evidence:
   c) selected records created, captured and maintained in those applications to be transferred for ingestion into the digital repository (Archival Management System) at the NAM for long term preservation.

2.   ERMS CTE PROGRAM POLICIES

2.1.   GENERAL

Compliance will be earned for each specific release/version of software. Changes to the software/upgrades will require additional compliance testing.

2.2.   TEST SPONSORSHIP

Compliance test requestors may be developers, vendors or Government Agencies. Test requestors are responsible for arranging for the compliance tests, providing the necessary hardware and software, and obtaining written permission from the owner of the product(s) to have it tested by NAM.

2.3.   COMPLIANCE TESTING

2.3.1 Location.
Compliance testing will be conducted at The National Archives of Malaysia (NAM) computer lab.

2.3.2 Hardware and Software Installation.
NAM can provide some of the client workstations; however, the test requester will be required to provide any servers and additional equipment and supporting software not available at the NAM, and to set up the test configuration(s).

The test requester would have to make the necessary appointments and arrangements to have access to the test lab (with the presence of a NAM personnel) to set up the test configuration(s) and to install hardware and software for testing. All costs for transportation, etc for installation and configuration will have to be borne by the test requester.

The test requester must ensure that all hardware and software installed and configured in the NAM ERMS test lab is in good working order and can be used at any time by the NAM testers. Once it is set up, the test requestor must ensure that the system is not turned off.

2.3.3. Log-In ID and Related Documentation.
The test requester must provide NAM with access information to the application being tested including all log-in IDs (application, servers etc), user manuals and all other related documentation such as the system's specifications and limitations etc.

2.3.4. Test Schedule.
The NAM will set up the test time table and inform the test sponsor(s) regarding the dates for testing. NAM however reserves the right to change the test dates if necessary.

2.3.5. Pre-Testing

The NAM will conduct pre-test sessions prior to the test schedule as necessary to carry out Test Readiness Review to assess the readiness of the application for test and evaluation. The NAM would also conduct testing for compliance to item 2.3.2 and 2.3.3 as outlined above. This pre-test would be conducted by the NAM Test Team to demonstrate the readiness of an application for test and evaluation so as to avoid committing test and evaluation resources needlessly.

2.4. RE-VERIFICATION TESTING

Re-verification testing may be requested in response to changes and updates to the System Spec. Changes to the system's environment configuration including hardware, operating system, and supporting software may require re-verification.
Functional problems found with previously verified products may require re-verification of that product.

2.5. TEST CATEGORIES AND COMPLIANCE CRITERIA

2.5.1. Mandatory Requirements Testing. This testing will verify that the application performs the functions specified in the System Spec. The NAM test team will use standard and repeatable test procedures and controlled test data to verify functionality. All mandatory requirements must be met in order for the system to be declared as compliant.

2.5.2. Optional Feature Demonstrations. There are no pass-fail criteria for the optional features; however, these need to be identified in advance to NAM. The test requester will demonstrate the functionality of these features to the NAM test team, and the features must be demonstrated using the test system as set up for the test.

2.5.3. Management of Classified Records. All ERMS applications used by public agencies in Malaysia must have the capability to Manage Classified Records as required in the System Spec and other regulations currently in force pertaining to classified records.

2.5.4. Product Combination Testing. This category of testing is applicable for ;

2.5.4.1. Record-creating applications that have integrated their product(s) with an already verified ERMS. The testing addresses whether the product combination has been successful and whether all the mandatory requirements are still being met. Optional feature demonstrations can also be performed in conjunction with this test. NAM will not verify products paired with an ERMS if the ERMS vendor no longer supports that version of the application.

2.5.4.2. Web client or other such application that is integrated with an already verified ERMS. This testing would also address whether the product combination is successful and whether the functional features of the web client

works in harmony with the application it is integrated with and that it does not interfere with the applications' ability to perform the functions specified in the System Spec. Optional feature demonstrations can also be performed in conjunction with this test.

2.5.5. Transfer Of Records From ERMS For Ingestion Into AMS. This testing will verify that the records created and captured in the application can be exported for ingestion into the Archival Management System at the NAM for permanent preservation. The records must be transferred together with its metadata in a transfer schema structure specified by the NAM.

2.6. SUSPENDING/RESUMING COMPLIANCE TESTING

2.6.1. Compliance testing would be suspended when the vendor **fails to**:

a) Meet the requirements specified in item 2.3.2 item 2.3.3. and item 2.3.5. of the Electronic Records Management Application Compliance Test and Compliance Process and Procedures;

b) Meet any one of the mandatory requirements specified in the System Spec.

2.6.2. Depending on the test case being executed, the NAM test team will decide on:

a) Areas that may be bypassed for testing at a later time versus those that will automatically suspend testing.

b) Changes the vendor will be allowed to make to the software locally versus those that must be completed at the vendor's software development facility.

c) The procedures to resume testing after a suspension.

2.7. TESTING FEE

The NAM may charge a fee for conducting the compliance testing. All fees must be paid prior to the testing. The Testing Fee is subject to the National Archives Fees Regulation.

3.   TEST DOCUMENTATION

3.1.   COMPLIANCE REPORTS

   3.1.1. Product Register Page.   NAM will create and maintain a compliant product register page for each compliant product on its website at www.arkib.gov.my. This page will include the date tested, the configurations tested, the options tested, vendor contact information and a listing of optional capabilities demonstrated by the vendor.

   3.1.2. Detailed Report. A detailed report will be provided to the test requester in both printed and computer file media. Test sponsors can further distribute this report at their discretion.   The report will provide a more detailed description of the functionality for both the mandatory and non-mandatory requirements for all products that receive a normal compliance or product combination compliance. Government agencies may request this report directly from the NAM to aid them in selecting suitable records management applications.   Other organizations will be advised to request detailed reports from the test requesting organization/ software developer/vendor.

The test requesting organization will be provided a draft of the report for review and comment before posting.   Test requesters should coordinate with the owners of proprietary information for additional report reviews prior to returning their comments. However, reviews and comments against the findings of the NAM Test Team would not be entertained.

4.   ERMS COMPLIANCE TEST PROCEDURES

4.1.   REQUESTING TESTING
4.1.1.   New test requests
New Test requestors (vendors, developers or government agencies) will have to submit the relevant forms below to NAM to request for compliance testing:

a.   Form ERMS CTE-1, Compliance Request.

b.   Form ERMS CTE-2, Compliance Request Product Combinations.

Upon receipt of the Form(s) NAM will schedule the test date and inform the test requestor regarding the scheduled date. NAM reserves the right to change the date of the test if necessary and would notify the test requestor at least one week in advance together with the new test date.

4.1.2.   Repeat Test Requests
Repeat Test Requestors cannot request for a retest within the same year of the previous test.   There must also be a minimum gap of 4 months between the end date of the previous test and the retest request date. Requests would have to be made using the same forms as in 4.1.1.

4.2.   PROCEDURES FOR TEST REQUESTORS

4.2.1. Test requester contacts NAM and establishes an initial proposal by submitting Form ERMS CTE-1 or Form ERMS CTE-2**.**

4.2.2. After processing the Test/Retest Request Forms NAM would prepare the Test Schedule and send it to the test requestor together with the Terms and Conditions Form - ERMS CTE-3 to comply to all the terms and conditions in the Electronic Records Management Application Compliance Test and Compliance Process and Procedures

4.2.3. The test sponsor will submit: the Terms and Conditions Form - ERMS CTE-3 to the NAM.

NOTE: The first increment of Testing fees would also be submitted with the ERMS CTE-3 (this would be applicable when the NAM begins charging a Testing Fee subject to the National Archives Fee Regulations).

4.3.   PRETEST ACTIVITIES

After the Terms and Conditions Form - ERMS CTE-3 is signed by the test requestor, it becomes the legal document for outlining the scope of effort, cost associated with the testing, and the roles and responsibilities for each organization.

See Appendix C, Test Coordination Timetables, for the timetable and sequence of events that need to occur prior to and after conduct of the test. Milestones and events in the timetable are required and must be completed prior to commencement of testing.

4.3.1. Test Requestor.

4.3.1.1. Upon receipt of the Terms and Conditions Form - ERMS CTE-3 the test requestor will assign a person to coordinate with the assigned NAM personnel. And return the signed Terms and Conditions Form - ERMS CTE-3 to NAM.

4.3.1.2. Ten weeks prior to test, the test requestor will submit updated CTE forms identifying all alternate test configurations including databases, operating systems, repositories, e-mail packages, and office automation. In addition, the test requestor will finalize all optional features to be demonstrated for all products.

4.3.1.3. Ten weeks prior to test, the test requestor must ensure that all hardware and software installed and configured in the NAM ERMS test lab is in good working order and can be used at any time by the NAM testers.

4.3.1.4. Eight weeks prior to test, the test requestor will submit all requested system documentation to NAM, e.g., LAN architecture diagrams, system design concept, concept diagrams, user and administrative manuals, etc.

4.3.1.5. Six weeks prior to test, the test requestor will begin submitting test scripts for all the 455 requirements in the System Spec Test scripts are step–by-step procedures with screen images that describe how to execute the test cases. NAM will use the completed test scripts to determine whether the product is likely to pass the compliance test. It would also be used to conduct the pre test and the hands-on test after/before the POC (see 4.4.2.). However NAM reserves the right not to use the submitted test scripts.

4.3.1.6. Four weeks prior to test, the test sponsor will submit completed test scripts and will notify the NAM that they have successfully executed all test cases.

4.3.2. NAM

4.3.2.1. Upon receipt of a signed Terms and Conditions Form - ERMS CTE-3, the NAM will assign a person to coordinate with the assigned test requestor. In addition, NAM will schedule the test.

4.3.2.2. Carry out a Test Readiness Review to evaluate application's readiness for test and evaluation as well as compliance to item 2.3.2 and 2.3.3

4.3.2.3. Ensure Test Requestor abides by all the terms and conditions and carries out all his roles and responsibilities for compliance testing.

4.4. TEST CONDUCT

4.4.1. Test Team Members

The Test Team will comprise of NAM personnel only. Representatives from the test requestor and/ or developer(s) of the system may be present and be active participants during the test. As a minimum, they will install and set up the ERMS software and provide on-site real time technical assistance. Since the NAM test personnel may be unfamiliar with the ERMS software, the test requestor may be asked to perform some of the functions of the ERMS software under the guidance and observation by NAM test personnel.

NOTE: Although the test requestor and/ or developer(s) of the system may be present and be active participants during the test, they however cannot dictate the testing process and they would have to abide by all rules and regulations set by NAM.

4.4.2. Compliance Testing Sequence

The NAM Test Team would decide on the sequence of testing ie whether to conduct POC of compliance to System Spec followed by hands-on testing by NAM Testers or vice versa.

The hands–on tests will be conducted in accordance with the NAM test cases. Test scripts provided by the test requestor would also be used if the scripts follow the format given by NAM and is arranged according to the sequence occurring in the System Spec.

4.4.3. Test Data and Test Reports

NAM personnel will maintain the test log and record the resulting test data and outcomes. All test reports would be prepared by the NAM Test Team.

4.5. POST TEST ACTIVITIES

4.5.1. NAM

4.5.1.1. One week after the test end date the NAM would prepare a brief report for approval and endorsement by the Special Committee on Compliance to the System Spec.

4.5.1.2. Notify test requestor regarding compliance or non compliance to the System Spec two days after meeting of the Special Committee on Compliance to the System Spec.

4.5.1.3. Three to four weeks after the test end date, the NAM will prepare a detailed report & a web site compliance notice.

4.5.1.4. Nine to ten weeks after the test end date, NAM will publish the detailed report. (NOTE: NAM will provide both a printed and electronic copy of the detailed report along with a compliance letter to the test requestor.)

4.5.1.5. NAM will respond to the following on an as needed basis:

    a.   Test sponsor requests for changes to the web site compliance notice.

    b.   Requests for detailed reports.

4.5.2. Test Requestor

4.5.2.1. Three weeks after the test end date, the test requestor will approve the web site compliance notice.

4.5.2.2. Four to five weeks after the test end date, the test requestor will review and approve the detailed report.

4.5.2.3. The test requestor will request for changes to the web site compliance notice on an as needed basis:

5. COMPLIANT PRODUCT REGISTERS

Staff of the Electronic Records Management Section will maintain registers of compliant ERMS products. The ERMS Compliant Product Registers identify software that has successfully completed compliance testing. The registers identify the software version and testing environment, including software that the ERMS has been interfaced with. Information on how to contact the test sponsor is posted.

APPENDIX A - ACRONYMS

NAM National Archives of Malaysia

ERMS Electronic Records Management System

CTE Compliance Test and Evaluation

LAN Local Area Network

POC Proof of Concept

APPENDIX B - REFERENCES

a. Electronic Records Management System (ERMS) System Specifications for Public Offices, National Archives of Malaysia, 2008

b. DoD 5015.02-STD, "Electronic Records Management Software Applications Design Criteria Standard," April 2007.

c. Defense Information Systems Agency, Joint Interoperability Test Command, Records Management Application Compliance Test And Evaluation Process And Procedures, July 2008**.**

d. Defense Information Systems Agency, Joint Interoperability Test Command, DoD 5015.2-STD Chapter 2 RMA Compliance Test Procedures, Version 7.5 – MAY 2004.

APPENDIX C – TEST COORDINATION TIMETABLES

Testers will send the timetables to the test sponsor. Milestones and events in the timetable are required and must be completed prior to testing.

Date/ Status	Milestone	Yes/No or Comments
	Test Requestor Responsibilities for ERMS Compliance Test	
	Assign a person(s) to coordinate with the assigned NAM personnel all aspects of the planning design and installation of the product(s).	Upon Signing Terms and Conditions Form
	Software Demo - Test requestor has provided an on-site or remote demonstration to allow NAM to determine that the candidate ERMS should be able to pass the compliance test.	Demo minus (T -)10 weeks
	Test requestor has submitted an updated ERMS compliance test request form ERMS CTE-1 or ERMS CTE-2 to NAM.	T – 10 weeks
	Test requestor has completely identified all alternate test configurations, including databases, operating systems, repositories, e-mail packages, office automation.	T – 10 weeks
	Test requestor has finalized all optional features to be demonstrated for all products.	T – 10 weeks
	Test requestor has installed and configured all hardware and software and it can be accessed anytime.	T – 10 weeks
	Test requestor has submitted all requested system documentation to NAM, i.e., LAN architecture diagrams, system design concept, concept diagrams, user and admin manuals.	T – 8 weeks
	Test requestor has submitted all test scripts, in increments.	Beginning T – 6 weeks; all complete by T – 4 weeks
	Test requestor notifies NAM that all test cases have been successfully executed.	T – 4 weeks
	Test requestor provides technical assistance for pre test if required	Hands-on by NAM testers T – 4 weeks
	Test requestor supports test.	T – T + 2 weeks
	Test requestor reviews and approves web site compliance notice.	T + 2 - 3 weeks
	Test requestor reviews and approves detailed report.	T + 4 - 5 weeks
	Test requestor requests changes to compliance listing on web site.	As needed

NAM Responsibilities for ERMS Compliance Test		
Date/ Status	**Milestone**	**Yes/No or Comments**
	Assign a person(s) to coordinate with the assigned test requestor personnel on all aspects of the planning design and installation of the product(s).	Upon Test Requestor Signing Terms and Conditions Form
	NAM schedules hands on test/demo.	As coordinated with test requestor and testers available.
	NAM sends information on testing to test requestor.	T – 12 weeks
	NAM has reviewed all requested system documentation to NAM, i.e., LAN architecture diagrams, system design concept, concept diagrams, user and admin manuals etc.	T – 9 weeks
	NAM has reviewed all test scripts.	Beginning T – 5 weeks; all complete by T – 3 weeks
	NAM testers conducts pre test	Hands-on T – 4 weeks
	NAM executes test.	T – T + 2 weeks
	NAM prepares report & submits report to Special Committee on Compliance to the System Spec	T + 2 - 1 – 2 weeks
	NAM notifies test requestor regarding outcome of the decision of the Special Committee on Compliance to the System Spec	T + 2 – 2 weeks
	NAM prepares detailed report.	T + 2 – 3 weeks
	NAM prepares and publishes web site compliance notice.	T + 3 – 4 weeks
	NAM publishes detailed report.	T + 9 – 10 weeks
	NAM responds to requests for changes to test sponsor's listings.	As needed
	NAM responds to requests for detailed test reports.	As needed

APPENDIX D - CTE FORMS

ERMS CTE-1   Compliance Test Request

ERMS CTE-2   Compliance Test Request for Product
                  Combinations

ERMS CTE-3   Terms and Conditions

ERMS CTE – 1 FORM

Send completed form to: NATIONAL ARCHIVES OF MALAYSIA	**Page 1 of 3**

COMPLIANCE TEST REQUEST	
Test Request Number (assigned by NAM)	
Date Received	

ERMS Product Name and Version	
Date ERMS Available for Sale	
ERMS Vendor in Malaysia	

Information Required for Contact	
Test Requestor's Legal Corporate Name	
Test Requestor's State of Incorporation	

Test Requestor has coordinated rights to assign licenses with: (List Rights Owners)

Statement of Ownership of ERMS Application:
NAME OF PARENT COMPANY:
COUNTRY:
ADDRESS:

E-MAIL:

One Brief Paragraph on Corporate History: (No Sales Talk)

Contact Details

Contact Name	
Company Name	
Street Address	
City, State, and Zip Code	
Phone Number	
Fax Number	
E-mail Address	

Form Date: 2009

ERMS CTE – 1 FORM (continued)	
Send completed form to: NATIONAL ARCHIVES OF MALAYSIA	**Page 2 of 3**

Details of Person Who Can Legally Bind the Corporation	
Company Representative Name	
Company Representative Title	

Points of Contact for Test Coordination	
Primary Point of Contact	
Phone Number	
E-mail Address	
Alternate Point of Contact	
Phone Number	
E-mail Address	

Testing Requested For Compliance to :
Electronic Records Management System (ERMS) System Specifications for Public Offices

Type of Testing Requested:
☐ **Initial Compliance**   ☐ **Re-verification**   ☐ **Retest**
☐ **Others (Please Specify……………………………………………………………..)**

Country of Origin of Source Code: _____

Description of Process Used to Mitigate Hostile Code:

Form Date: 2009

ERMS CTE – 1 FORM (continued)
Send completed form to: NATIONAL ARCHIVES OF MALAYSIA   Page 3 of 3

ERMS SOFTWARE TEST CONFIGURATION DATA

Configuration Item	Product Name	Version and Service Pack
ERMS Server Operating System		
Client Operating System		
E-mail Client		
E-mail Server		
E-mail Server Operating System		
Database		
Database Server Operating System		
Web Server		
Web Server Operating System		
		Form Date: 2009

ERMS CTE-2 FORM
Send completed form to: NATIONAL ARCHIVES OF MALAYSIA   **Page 1 of 4**

COMPLIANCE TEST REQUEST
PRODUCT COMBINATIONS

Test Request Number (assigned by NAM)	
Date Received	

Note, if more than three total products are combined, please attach a list of product names, versions and vendors.

ERMS Product Name and Version	
ERMS Vendor In Malaysia	
Combined Product Name and Version	
Combined Product Vendor	
Combined Product Name and Version	
Date Combined Product Available for Sale	
Combined Product Vendor	
Test Requestor's Legal Corporate Name	
Test Requestor's State of Incorporation	

Test sponsor has coordinated rights to assign licenses with: (List Rights Owners)

Statement of Ownership :
NAME OF PARENT COMPANY:
COUNTRY:
ADDRESS:

E-MAIL:

One Brief Paragraph on Corporate History: (No Sales Talk)

Form Date:2009

ERMS CTE-2 FORM (continued)	
Send completed form to: NATIONAL ARCHIVES OF MALAYSIA	**Page 2 of 4**

Contact Details	
Contact Name	
Company Name	
Street Address	
City, State, and Zip Code	
Phone Number	
Fax Number	
E-mail Address	

Details of Person Who Can Legally Bind the Corporation	
Company Representative Name	
Company Representative Title	

Points of Contact for Test Coordination	
Primary Point of Contact	
Name	
Phone Number	
E-mail Address	
Alternate Point of Contact	
Name	
Phone Number	
E-mail Address	

Form Date: 2009

ERMS CTE-2 FORM (continued)
Send completed form to: NATIONAL ARCHIVES OF MALAYSIA   Page 3 of 4

Testing Requested For Compliance to :
Electronic Records Management System (ERMS) System Specifications for Public Offices

Type of Testing Requested:

☐ **Initial Compliance**   ☐ **Re-verification**   ☐ **Retest**

☐ **Others (Please Specify……………………………………)**

Country of Origin of Source Code: _____

Description of Process Used to Mitigate Hostile Code:

Configuration Item	Product Name	Version and Service Pack
ERMs Server Operating System		
Client Operating System		
E-mail Client		
E-mail Server		
E-mail Server Operating System		
Database		
Database Server Operating System		

Form Date: 2009

ERMS CTE-2 FORM (continued) Send completed form to: NATIONAL ARCHIVES OF MALAYSIA Page 4 of 4		
Configuration Item	**Product Name**	**Version and Service Pack**
Web Server		
Web Server Operating System		
Web Browser		
Office Automation System		
Repository/Storage of the Electronic Content		
Combined Product		
Combined Product Server		
(Describe what is delivered/supported in the production environment)		
Amount of Storage Available		
Available Documentation		
Hardware Platforms and Peripherals Supported		
Operating Systems Supported		
Networks Environments Supported		
Protocols Supported		
Training and Customer Service Plans		
Support Harvesting of Web Records?		
		Form Date: 2009

TERMS AND CONDITIONS
ERMS CTE-3 FORM

1. I hereby certify that I have handed over all of the following to the NAM for Compliance Testing purposes:

   1.1 Documentation :
   - LAN architecture diagrams
   - System design concept
   - Concept diagrams
   - User manuals;
   - Administrator manuals; and
   - System's specifications and limitations
   - Test Scripts

   1.2 Technical Requirement :
   a)   10 log-in ID's and passwords for the system*
   b)   Log-in ID and password for all*:
   - Application Server,
   - Database Server
   - Fax Server
   *Attached separately to this form.

2. I have also conducted software and hardware installations and configurations at the NAM Computer lab. All software and hardware are in good working order and can be accessed at any time by the NAM Testers for pre testing and for hands-on testing during the test duration as specified in Appendix C of The Electronic Records Management System Compliance Test And Evaluation Process and Procedures.

3. I will also provide all technical assistance to the NAM testers as required to ensure that all software and hardware functions well and does not break down or disrupt the compliance testing at any time during the test duration.

4. I have also read The Electronic Records Management System Compliance Test And Evaluation Process and Procedures and hereby agree to abide by all the terms and conditions set forth in the said document.

REQUESTOR

_____
Signature
Name :……………………………………………………
Designation : ………………………………………………

Date : …………………………………………...........