

Generic requirements for sustaining electronic information over time:

4. Guidance for categorising records to identify sustainable requirements

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1 Summary

- 1.1.1 Sustainable records are defined as those electronic objects and their concomitant metadata which defines them as records, which require continued retention by the creating or owning organisation until such time as the records can be destroyed or, where that is warranted, passed to a specialist archive for permanent archiving. If records are to be sustained there must be confidence that the maintained records possess authenticity, reliability, integrity and usability.
- 1.1.2 This document provides high-level guidance for departments seeking to categorise their records to scope the specific nature of the requirements needed to sustain these record categories as authentic records in order to ensure that electronic records which are to be sustained over a defined period of time are able to satisfy the characteristics of a record as defined in *BS ISO 15489* that is authenticity, reliability, integrity and usability. If these characteristics are not maintained the sustained records will lose credibility and will lose evidential value.
- 1.1.3 This *document* should be read in conjunction with the other three accompanying volumes in the series on *Generic requirements for sustaining electronic information over time*. The titles of the other 3 volumes in the series are:
2. *Sustaining authentic and reliable records: management requirements*
 3. *Sustaining authentic and reliable records: technical requirements*
 4. *Guidance for categorising records to identify sustainable requirements*
- 1.1.4 Volume 1 provides a summation of the principles and attributes, which would support an attestation of authenticity and integrity and which need to be maintained as part of the electronic record in accordance with *BS ISO 15489 Information and documentation – Records management standard*. Volume 2 describes the management controls required for such systems and volume 3 addresses the technical requirements needed to maintain sustainable electronic records.
- 1.1.5 It is strongly recommended that the guidance in this document is used to inform the development of the strategy planning frameworks advocated in Volume 2 of these requirements.
- 1.1.6 These generic requirements are not a full specification. They form a baseline, which sets out, - the minimum necessary to maintain credible electronic records which will continue to possess the attributes of authenticity and integrity over time. They also should be read as an accompaniment to the Functional Requirements for Electronic Records Management Systems 2002 revision: final version which are available at:
- <http://www.pro.gov.uk/recordsmanagement/erecords/2002reqs/default.htm>
- 1.1.7 The guidance is intended primarily for those working in central government; the principles will also be relevant in local government and throughout the

public sector. Throughout this document the term 'department' should be taken to apply to any public sector organisation, including all departments, agencies and other organisations across government. Familiarity with the concepts of records as used in central government is assumed.

- 1.1.8 Each government organisation wishing to make use of these requirements, as a baseline or benchmark, will always need to consider its own specific business needs and context in determining its own requirements. These generic requirements must be tailored by: adding specialist business needs which are not covered at this generic level, selecting from alternative requirements according to corporate policy and practice, assessing whether any requirements listed in these volumes are highly desirable as opposed to mandatory for their own context
- 1.1.9 The generic functions described in this document may also be relevant to a permanent archive but the needs of archival preservation are considered as distinct from those operations required to maintain electronic records for continuing business needs even where the overall retention period may last for some decades.

2 Introduction

2.1 Purpose

- 2.1.1 This guidance should be used in conjunction with the companion volumes 1 to 3 of the *Generic requirements for sustaining electronic information over time*. This document is intended to present a way to assess the sustainability requirements of different record categories and provide the foundation for developing strategies that will ensure the requirements are met.
- 2.1.2 Records produced during the course of operational business will be used in different ways for varying lengths of time. The inherent differences between various records means that multiple strategies will need to be developed for sustaining records throughout their retention period. The differences in the records also needs to take account of how their use might change as this will affect their sustainable requirements.
- 2.1.3 The sustainable requirements for particular records are associated with the need to retain them for operational and other business uses. This means that there is a need to be able to categorise records in a way that reflects how the records are used and will be able to be used as a broad measure of their different requirements. This guidance takes a high level view about the development of record categories although in practice it might be necessary to develop more discrete groupings. Through developing these categories it will be possible to ensure that the records of most value to the department are not compromised and will be fit for purpose.
- 2.1.4 The International Standard for Records Management, *BS ISO 15489*, provides a definition of what constitutes a record, stipulating that it must have authenticity, reliability, integrity and usability. Together reliability, integrity and usability constitute an authentic record and a record that is not authentic will be compromised and unfit for purpose. The definition of what constitutes an authentic record will not be the same for every record category as each category will have a different need and a different interpretation of reliability, integrity and usability. The differences in the level of authenticity between each record category can be used to inform the development of different sustainable record strategies for the record categories.
- 2.1.5 The costs of sustaining or preserving records for long periods are potentially high even if the overall storage costs appear to be low. To guarantee reliable access to electronic records over time will require intervention strategies to perpetuate such access. In order to minimise costs it is therefore desirable for departments to identify those categories of their records where it is essential for the effective conduct of the business to apply these strategies. Once the profile of a category is established which clarifies the elements that are needed to preserve the records as reliable, authentic and usable assets it will also be possible to identify the overall costs and resource implications of applying a particular maintenance strategy to a given category of records.

2.2 Benefits

2.2.1 The benefits of adopting and implementing sustainable strategies to targeted record categories can be summarised as follows:

- identification of the known or potential use of the records and how this may change over time.
- identification of the level of reliability required if the records are to be fit to meet the known business and operational use.
- identification of the requisite qualities that need to be maintained if the records are to demonstrate a meaningful degree of integrity.
- identification of the changing usability need to present and interpret the record in an intelligible manner.
- the ability to justify need and allocation of resources into sustaining particular record categories.
- the ability to determine when the sustainability requirements of a set of records might change and work out the implications this might have in terms of risk and resources.
- the ability to predict where resources will need to be allocated according to changes either in software or in terms of machinery of government changes to ensure records are sustained to the appropriate level of authenticity.
- identification of the risks and consequences involved if the records are not sustained. – e.g. are the benefits of sustaining greater than the benefits of not sustaining?
- identification of the resource requirements and concomitant costs needed to sustain particular record categories to a defined level of quality.

2.3 Audience

2.3.1 This methodology is designed to help Departmental Record Officers and others charged with record management responsibilities to scope the profile and volume of the high level categories of electronic records held by their organisations, which are generating a need for sustainable requirements.

2.3.2 There will be other stakeholders in the organisation who will participate in the assessment of electronic record collections, from an operational, business or IT perspective. All concerned should ensure consistency with the organisation's corporate policy and procedures, and general working practices.

2.3.3 The guidance is intended primarily for those working in central government; the principles will also be relevant in local government and throughout the public sector. Throughout this document the term 'department' should be taken to apply to any public sector organisation, including all departments, agencies and other organisations across government. Familiarity with the concepts of records as used in central government is assumed.

3 Developing a strategy

3.1 General

- 3.1.1 This document is intended to assist departments to clarify the record attributes that need to be sustained over time. These in turn will help identify broad record categories and the resource requirement needed to sustain the records to a standard appropriate for the duration of the continuing business need.
- 3.1.2 The rigour with which sustainable requirements need to be applied will not be the same for all records as the length and type of business and operational use will not be the same. The differences in business and operational use will affect records in a way that will affect their need for authenticity, for example records used in court proceedings need to have a higher level of authenticity than those used for research purposes.
- 3.1.3 In developing a sustainable records strategy account needs to be taken of the differences of the length and type of use of different records. It would be impractical to do this at the level of individual records and unnecessary as many records have similar features. This means that it is necessary to determine how records can be categorised at a high level in a manner where their characteristics reflect similar sustainable requirements
- 3.1.4 The nature of these categories will vary according to the nature of a department's activities and roles but it is to be emphasised that a broad-brush approach needs to be adopted to scope the sustainable requirements. Looking at every record type created within an organisation and trying to establish a preservation need at that lower level is unnecessary as it is felt that this would be an expensive and problematical approach. Effective risk evaluation ultimately is critical to the success of a corporate strategy to maintain sustainable records.
- 3.1.5 Section 1 will help first assess the value of a record category to the organisation and their relationship with other records across the organisation. Having established the broad need it then becomes necessary to identify the precise elements that need to be preserved to maintain these records as authentic records as defined by *BS ISO 15489 Information and documentation – Records management standard*.
- 3.1.6 *BS ISO 15489* defines an authentic record as *one that can be proven*. This can only be done if the elements that constitute the other three characteristics referenced above are present. The issue for any organisation is to determine what elements have to be maintained and to what level or degree of quality if the sustained record is to represent a viable information asset during the its lifetime. Sections 1 6 and 7 which follow posit the questions that need to be addressed in order for departments to scope their own requirements for reliability, integrity and usability.
- 3.1.7 Each department needs to identify and sustain the key characteristics required to maintain as credible assets those record categories, which support their

wider business needs. These characteristics are defined in Volume 1 of these requirements. They are:

- Authenticity
- Reliability
- Integrity
- Usability

3.1.8 Having identified the characteristics that need to be maintained it then becomes necessary to identify the required resource requirements and overall costs of maintaining records to that degree. Section 8 posits some of the questions that need to be consider at this stage.

3.1.9 Having undertaken this analysis it is then recommended that departments apply a risk evaluation methodology to ascertain the risk to the organisation of not maintaining records to the recommended degree. The final outcome should provide a robust basis for taking corporate decisions for the development and implementation of sustainable strategies.

3.1.10 It should be emphasised that the questions proposed in this document do not represent a comprehensive or an exhaustive list nor would it be necessary to define responses to all the questions referenced in this document. These questions are provided as guidance not as mandated requirements. Department's should use their judgement to determine which are apposite given the business environment they work within.

4 Assessing the Value of Records

- 4.1.1 Departments need to establish whether they have a continuing operational need for the records. In doing this they need to consider not only immediate, operational short-term need, but also longer-term accountability and legal issues e.g. the need to explain why the department took a particular decision. A distinction can be drawn between the operational need which created or captured the record originally and the wider business need
- 4.1.2 A record category's relationship with other records is also a factor which can increase or decrease the value of the records to the department. When used in combination with other records the value of a category may increase. The category might also duplicate or overlap with another record category in such a way that the department only needs to keep one of category.
- 4.1.3 To assist the department to identify the value of the records to the business two areas need to be considered. These are:
- content and business use identifying the value of the material based on the record category alone and,
 - relationship with other records assessing the material in the context of other, related record categories
- 4.1.4 To establish the value of a collection of electronic records, departments should look at the pattern of responses they obtain to the questions provided below in sections 4.2 and 4.3 which are intended to both identify the content, business use and the relationship of a record category with other records held by the business. An indication that there is a medium or a high response to these questions constitutes strong grounds for preserving the records for the duration of that need provided that the resource implications are not excessive. Record categories consistently rated as having a low requirement are either not required for continuing business purposes or are likely to merit preservation for a short period of time where the ongoing maintenance costs are likely to be trivial.

4.2 Content and business use

- 4.2.1 The questions below are proposed to help identify the business need
- To what extent is there a continuing operational requirement for this information for current business processes?
 - To what extent are these records needed to document the business process/decisions taken/actions carried out for future operational use?
 - How important is the user's/creator's continuing need for this information in the future?
 - To what extent are these records needed to fulfill legislative requirements?
 - What implications for accountability arise from a decision to dispose of these records?

4.3 Relationship to other records

4.3.1 The questions below are proposed to help identify the business need

- To what extent do the records in this category support the interpretation and use of other records?
- What value do these records add to a wider set of information?
- To what extent do these records have a logical relationship to other record categories that are being kept for business purposes?
- If these records are derived from a wider body of information, how much value do they add to the original information?
- If these records contain personal data, to what extent does use of it comply with the Data Protection Act?

5 Identifying the requirement for reliability

5.1.1 This section is intended to help identify what is the need for continued reliability as defined in *BS ISO 15489*. In other words what operational needs are served by the continued existence of a record and what elements are essential to maintain to ensure that it can be considered to be reliable for those purposes. The need for reliability will differ according to the different types or categories of records created and held by a department

5.1.2 The characteristic of reliability itself can be broken down into three sub elements. These are:

- trust
- relationship/context
- longevity

5.2 Trust

5.2.1 Trust is critical to reliability as without it there can be no meaningful faith in the accuracy of the retained records. The issue here is not so much the precise characteristics of an individual document as the characteristics of the records of an activity or transaction, which have to be maintained if the records are to continue to be serviceable. The questions that need to be addressed in order to substantiate trust are:

- What makes up or constitutes the record? (i.e. what is it that has been captured that is critical to the business)
- Who was the creator and how are they identified? (what are the critical elements just the individual's identity or name or the profile allocated within the ERMS at the time of the creation of the record? – the profile may be required to confirm if the officer named possessed the appropriate authority to undertake or authorise the transaction)
- Which dates have been captured in relation to the creation and modification of the records and which are significant? (i.e. what if any are the critical stages of the work process or transaction which have been captured)

5.3 Relationship/Context

5.3.1 Comprehension of the meaning and value of records relies upon the ability of the reader to place the records in their operational context in a manner that their relationships with other affected records are clear and transparent. Again it is not so much the precise characteristics of an individual document that should be considered as the characteristics of the records of an activity or transaction. Here it is the links and relationships with other records and the location of these within the business classification schema, which need to be considered. It should be noted that the adoption of the records management metadata standard provides for the creation and management of relationships under the element Relation. The existence of pointers within an ERMS giving multiple locations is also relevant here. The questions provided below will help determine what contexts or relationships must be maintained for the records to be considered reliable.

- What is the scope of the records and what do they cover? (e.g. in the case of case records or transactions an understanding of the business process and possibly the statutory or regulatory context in which the records were created is essential to understanding them over time)
- Which records would be maintained in the same vicinity of the classification schema or file-plan, which are critical to the understanding of the activity?
- Which other significant records were produced in conjunction with the records of the activity under consideration?
- How long do these relationships continue to be meaningful?
- What cross-references or pointers exist and what is the relevance of the link between the two sets of records?

5.4 Longevity

5.4.1 Longevity refers to the duration of the period for which the business still depends on the records to fulfil a residual business need. The requirement for reliability may differ according to the different types or categories of records created and held by a department. Establishment of this sub-element will assist in clarifying the requirement for maintaining the characteristic of integrity, which follows in the next section of this document.

- How long are the records used by the business centre that creates and manages the records?
- How often are the records updated while they are open?
- When are the records considered to be closed? (i.e. no longer updated)?
- How frequently, by whom and for what purposes are the records referred to once they are closed? (this helps identify the scale and nature of the continuing access requirement)
- What makes up the record and which parts are considered to be dispensable if any?
- Which dates or other information would be captured subsequently in relation to the modification of these records? (e.g. requirement to amend following a data protection subject access application)

6 Identifying the requirement for integrity

- 6.1.1 This section is intended to help identify what are the requirements for continued integrity to inform departmental strategies for sustainable records. If reliability emerges from the original operational purpose that caused the record to be created integrity should reflect the long-term business needs that are served by the continued existence of a record. *BS ISO 15489* differentiates reliability from integrity which suggests there is a distinction to be drawn between the immediate operational need, which requires records to be reliable to ensure effective transactions, and the longer term business need, where those same records must display integrity through possessing a quality of auditability ensuring that they can be considered to be authentic over time. If integrity is absent authenticity is very difficult to adduce let alone assert.
- 6.1.2 What has to be determined is what gives a record category its required level of integrity and how might this differ across the various categories of records identified.
- 6.1.3 The characteristic of integrity itself can be broken down into four sub elements. These are:
- traceability
 - retention periods
 - applicable rules, standards and regulations
 - risk

6.2 Traceability

- 6.2.1 In order to confirm the record is unchanged or that only authorised and appropriate changes have been made, the status of the records and the presence or absence of change has to be auditable or traceable. The questions that follow can be used to scope the both need and the degree for auditable information
- For audit purposes, what are the minimum requirements of events to be recorded? For example,
 - a. changes in access provisions
 - b. additions to records (e.g. annotations and modifications)
 - c. movement history (e.g. exports or imports due to transfers of function or re-classifications within the business classification schema)
 - d. who has accessed the record and when
 - e. formats into which the record has been rendered, how this was achieved and why
 - f. changes in retention periods, why and when this was done
 - How long would the events captured in the audit trail be needed for business purposes?
 - Is there a need to maintain a record of the decisions relating to the access permissions applied to the records?
 - When will a review of access provisions and permissions be required and

what type of notification will be required?

- Is there a need to maintain an ongoing record of who has been permitted to have access to the records and the dates relating to the period of permitted access? (note - this is separate from a record of changes in access permissions)
- Is there a need to maintain a record of who has been permitted to modify the records? (note this is separate from a record of authorised changes or modifications)
- After the record has been disposed of how long will the metadata referencing the former record need to be viewable/ present/accessible?

6.3 Retention periods

6.3.1 As integrity is bound to the need to demonstrate authenticity over time it is necessary to clarify the specific business retention requirements. In doing this it will be possible to establish the overall duration of the retention period to be applied to a category of records and clarify the profile of retention taking into account that the cost of the maintenance period is related to the length of the retention period. Where it is possible to reduce the volume and complexity of the records required to be sustained without compromising business effectiveness this will help justify the business case for expenditure on sustainable strategies.

- What are the retention requirements for these types of records?
- How is the retention period determined? (i.e. is it specified by a regulatory or statutory requirement)
- Are there some records in this area where parts of the records have longer retention periods than the rest of the record? (e.g. certain key documents relating divorce decrees are retained for 75 years whereas the bulk of the material relating to a case are deleted after 25 years)
- Are there examples where it is more appropriate for a subset or abstract of the record of a transaction, rather than the whole record, to be retained for a longer period? (e.g. summary of employment service retained for superannuation purposes)

6.4 Applicable rules, standards and regulations

6.4.1 In certain instances it may be necessary or desirable to retain records related to a broad record category where the records were themselves generated in response to codes of instruction or standards in force at that time. In order to confirm if the record of a transaction was valid in these circumstances it may be necessary to reference the rules that applied at that juncture. For example a query or claim for an entitlement to a benefit may only be validated by cross-checking the standards that were extant at the time the adjudication was made.

- Is there a need to maintain the requirements and standards needed when considering for how long the records should be maintained?
- Is there a need to maintain the requirements or standards relating to the maintenance conditions of the records? (i.e. certain key document types may be explicitly referenced. For example, the server on which the records were stored, maintenance operations conducted on server, architecture of ERMS)

6.5 Risk

6.5.1 The issue of record integrity is closely linked to effective business continuity planning in that in order to clarify the cost of maintaining record integrity it is necessary to evaluate the risk to the organisation if the records have been retained as incomplete or with limited auditable functionality. The following questions are intended to help identify the scale of the risk to the organisation if integrity is compromised. This in turn will help cost justify the selection and application of specific sustainable strategies.

- What are the potential problems if the records are not available over x, y, z number of years?
- What are the potential risks of not effectively disposing of the records at the correct time?
- What are the potential problems if access controls and permissions are not properly maintained?
- What are the potential consequences of inaccurate information?
- What are the potential risks of not knowing where related records are located?
- What areas of the business would be of particular concern in relation to risk and contingency management and which records are considered to be the vital and/or the emergency records?

6.5.2 Any preservation plan needs to distinguish between vital records and emergency records and to make appropriate provision for their survival. Vital records are those records whose long-term preservation must be ensured to allow the continuation of organisational functions. In the event of a disaster, an organisation may not need immediate access to vital records, but it must be confident of their safety. Emergency records are those records to which rapid access is necessary following a disaster; records without which your organisation cannot function for more than a few days. It should be understood that not all emergency records are vital. Many vital records are not emergency records.

6.5.3 An example of vital records would be financial records, which are required for auditing purposes only. One can get by without these for some months, but eventually the auditor will want them. If there are delays getting hold of them because of some disaster, the auditor will understand, but you cannot manage without them forever as the accounts are required to be audited. Documents necessary to prove title to something, or original contracts, also fall into this category. Such records are vital (i.e. they must be sustained) but they are not essential to the management of the emergency.

6.5.4 Emergency records are those, which an organisation will need immediate access to but which are not critical to the business in the long term. Current contact directories, telephone lists and procedural manuals would fall into this category. Out of date copies of internal directories and manuals are rarely relevant in an emergency but the absence of current documentation could make timely recovery very difficult and could compromise the quality of the restored service. Emergency records tend to be updated and replaced at

frequent intervals and are less likely to require the application of a maintenance strategy than vital records.

7 Identifying the requirement for usability

7.1.1 The requirement for usability may appear superficially the easiest to scope and comprehend particularly where the records either consist of images or text. Providing the appropriate viewer or browser is available the end users should have no difficulty accessing the record. The issue can then appear to revolve around the availability and presence of the appropriate viewing software. However, the issue is more complex than the previous analysis might suggest as usability is also about ease of locating, quick retrieval and the quality of the presentation. The first question to posit is:

- What makes a record usable and how might this differ according to different types of records?

Four sub-elements then need to be considered in evaluating the requirement for the usability of records over time. These are

- locating
- retrieval
- presentation
- interpretation

7.2 Locating

7.2.1 Locating refers to the means used to reliably identify without undue difficulty the record or records needed to satisfy the user's query. The location within the business classification schema or file-plan is one aspect but also the issue of accurate titling, meaningful nomenclature and the use of aliases or alternative titling fall into this area.

- How are the records titled?
- What cross references/pointers are also required to be maintained and how are they made visible?
- What is used to show the location of records within the business classification schema or file-plan?
- What thesaurus terms are used and are these industry standard or user defined (the latter need to be identified if they are to be maintained)?

7.3 Retrieval

7.3.1 Effective retrieval is dependent upon the anticipated pattern of access demand and the application and continued management of appropriate access permissions.

7.3.2 There are also very real concerns about the ability of organisations to ensure successful retrieval to encrypted or password-protected objects. In the first instance there is usually a reliance on the presence of a proprietary software to open the object and in the second instance an ability to store and recall the appropriate password upon demand – if either mechanisms are not safeguarded and managed very carefully it may prove impossible, or at least very costly, to access such material. It is for that reason we would advocate that such protections are removed from objects before capture into an EDRMS

environment and any ongoing access control and security issues be managed using the appropriate functionality from within the EDRMS to prevent unauthorised access or retrieval.

7.3.3 The level of access provided for retrieval purposes has also to take account of the anticipated reasons for retrieval and the frequency of demand. It should be noted that the reasons why a record may be accessed can change over time and may involve a different set of users, with a different frequency of demand to the pattern of use established by the operational need that created the record in the first instance. The patterns of use should be regularly reviewed for that reason as these can have cost implications for the organisation. Reduced demand may suggest that off-line storage would be acceptable whereas an increase in use may suggest that continued on-line access throughout the organisation is the preferred outcome. Essentially there are four types of storage. These are:

- On-line – (e.g. on servers on magnetic disk)
- Near-line (e.g. CD juke-box or robotic tape storage)
- Far-line (e.g. an on-line index with the records held on disk or tape in off-line storage)
- Off-line (e.g. index and objects stored on media externally to the network but physical retrieval possible upon request)

In practice the business requirement will mean the first two options are preferred for their greater convenience. However, the economics of far-line and off-line storage may be very attractive if the use of the records is estimated as being residual and very infrequent

7.3.4 Access requirements can be characterised by the following estimates:

- Total number of retrieval requests in a given period
- Average number of documents requested
- Average total size of request in megabytes
- For databases, cost of database query (rows retrieved or examined)
- Anticipated methods of retrieval (e.g. use of keywords, full text indexes and thesauri)

7.3.5 Access must be capable of being defined in response to an organisation's business needs and is likely to vary according to the organisation's information requirements. Records may need to be made available to the entire organisation or to a designated part of the organisation; there may be a series of levels or views depending on user access permissions. Records maintained without a sufficient access provision can be effectively worthless as the information they contain will not be readily retrievable to the key users.

7.3.6 The critical elements for an effective access strategy can be summarised as follows:

- Identify who can make requests, and who can execute them
- Understand management parallels with paper records
- Beware of using past access to predict future access patterns
- Take disaster recovery into account in planning

7.3.7 The questions that need to be asked to ascertain the retrieval and access requirements are:

- Are the access permissions likely to change over time?
- What type of access permissions would be set?
- What prompts would be set for access permissions to be changed?
- What level of frequency of access is required?
- What is your policy on encryption and password-protected documents/objects – are these routinely removed upon capture into the EDRMS?

7.4 Presentation

7.4.1 Effective presentation ensures the user can retrieve and view the records with the appropriate level of functionality required to undertake a meaningful interpretation. In some instance this may require the original program to be available so that the data can be manipulated or edited using the same functionality to create a new document or version, which can then be saved and added to the corporate record without changing or deleting the original. In other cases it may be sufficient to view the image in a more static environment either by using viewer technology or be generating a rendition, which is a faithful image of the original.

7.4.2 Different groups of users may have different presentation requirements. In some cases a small group may need the original functionality when viewing the record. The cost of supporting such a service may not be too onerous for a small group of specialised users but excessive for the whole organisation where the opportunity of viewing a rendition would normally be a satisfactory alternative. The technology used to interface and view the record must therefore reflect the ongoing business need. The questions that need to be addressed are:

- What form do the records currently take, what format are they associated with, word, excel, spreadsheets, word processing, slides, html?
- What level of presentation is essential to enable the users to undertake the work anticipated and required by the business

7.5 Interpretation

7.5.1 Interpretation at its simplest can be addressed by an ability to view text or images using a simple browser without the enhancements offered by the original software, for example one can view documents created in MS Word using a text file viewer such as WordPad although the formatting is lost in this view. In other circumstances seeing the content without the display and formatting built into the original document makes interpretation difficult if not impossible. If, for example, a respondent has cited a specific paragraph or entry of a code of instruction by its original number as the authority for undertaking an action or receiving an entitlement and this data is not visible to the user in the business, it will not be possible to either confirm or deny the validity of the claim. This type of information is often built into the format display properties of the software in which the document was originally conceived and can only be viewed either if the original program is available or

an appropriate rendition, which has captured this detail, has been created and maintained.

7.5.2 In other instances interpretation also needs to be supported by linked contextual information, for example the ability to view the metadata of the record in both its original and existing context. This may require users having sight of both the current business classification system in which the records reside and the original classification system where that differs from the current version. This situation can arise where functions have been transferred between government bodies resulting in bulk exports and imports of metadata and data between EDRM platforms. In those cases a portion or subset of the earlier or original classification system will have been transferred before the records are relocated in the new business's classification system. Maintaining a copy of the original classification system can assist understanding of the full context in which the records were created and used as well in addition to how they are seen in the current classification plan.

7.5.3 The questions that need to be addressed are:

- What is it about the document that will require interpreting, the content, the presentation or both?
- What level of contextual information is essential to a full understanding of the records?

8 Assessing resource implications

- 8.1.1 Departments need to identify and quantify the resource implications required to maintain an existing record collection. This section is provided to help departments to undertake this process by supplying the key questions that need to be asked in order to clarify the overall resource requirement of continuing to apply a sustainable strategy to a record category.
- 8.1.2 Departments need to compare the value of the records to the business suggested at section 1 with their concomitant requirements for reliability, integrity and usability proposed at sections 5, 6 and 7 against the cost and resource implications of applying a strategy which will secure the value and the authentic properties of the records. Extended or indefinite storage of electronic records does incur significant overheads and recommendations to either dispose of, or retain, a category of records will be informed by this knowledge.
- 8.1.3 Record categories of low value to the business but with high resource implications will normally be marked for early disposal. However if the resource implications for continued retention are significant and the value of the records to the business are also high, knowledge of the continuing overhead will help focus decisions to migrate the information to more accessible and less onerous technical solutions. Such decisions will ensure the continued survival of the records. Caution is advised when evaluating record categories with high resource implications as such requirements should not of themselves determine a recommendation to dispose of a collection.
- 8.1.4 Departments are reminded that all electronic record categories subject to disposal recommendations must be appraised by the DRO in accordance with the National Archives (TNA) Acquisition and Disposition policies to determine whether permanent preservation and transfer to the National Archives (TNA) is merited. Indeed where it is apparent from the start that a category merits permanent preservation it is recommended that departments consider an early transfer to the National Archives (TNA) secure the records thus avoiding the need for the adoption of expensive maintenance strategies by the custodial department. The DRO should first consult with the TNA Client Manager before undertaking this process.
- 8.1.5 The questions that need to be asked at this juncture are:
- Are these records subject to security classification and/or protective markings?
 - Are these records subject to other operational access controls?
 - Should the records be reviewed for sensitivity?
 - Are these records accessible via the current hardware/software platform?
 - If accessed via their current platform, will the records continue to be accessible on this platform for the short term? (1 to 2 years)
 - If accessed via their current platform, will the records continue to be accessible on this platform for the medium term? (3 to 5 years)
 - What percentage of the records require migration in the short terms (1 to 2 years) to a different software format to retain access?
 - What percentage of the records require migration in the medium terms (3 to 5 years) to a different physical format to retain access?
 - Are there specific difficulties in migration due to e.g. proprietary formats, non-standard design structures?

- Should the records be sampled to verify technical decisions?

9 Compliance assessment – evaluating the implementation of the strategy

- 9.1.1 All sustainable strategies should be subject to regular review to assess their relevance and effectiveness. Department's need to assess whether the assumed pattern of use and concomitant retention requirements are still appropriate taking into account the perceived business benefit, the contingency requirements and the overall cost of continuing to apply the selected strategy. It is recommended that the interval for evaluating these strategies should not exceed 5 years.