Laboratory, ATTN: Data Standard for Records Description, Technology Building, Room B154, National Institute of Standards and Technology, Gaithersburg, MD 20899.

Written comments received in response to this notice will be made part of the public record and will be made available for inspection and copying in the Central Reference and Inspection Facility, Room 5020, Herbert C. Hoover Building, 14th Street between Pennsylvania and Constitution Avenues, N.W., Washington, DC 20230.

FOR FURTHER INFORMATION CONTACT:

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SUPPLEMENTARY INFORMATION: The Computer Systems Laboratory of the National Institute of Standards and Technology is considering the development of a Federal Information Processing Standard (FIPS) for the data elements—their identification, representation, arrangement, and object binding—to describe information objects. Such objects include but are not limited to electronic mail messages, word processing documents, spreadsheets, forms, voice-mail messages, images, and publications. This notice refers to all such objects with the single term "record" as a generic term to encompass documents, messages, and information objects of all kinds.

The set of data elements will constitute a Record Description Record (RDR). The RDR will be created whenever e-mail messages, word processing documents, image documents, spreadsheet documents, voice-mail messages, etc., are created, using either commercial-off-the-shelf (COTS) software products or non-COTS software. It will accompany those information objects when they are passed to a document management (storage and retrieval) or object repository product (either COTS or non-COTS), or when they are passed to some other software being used to store and retrieve them.

By applying the standard to document management or object repository software products, it will become possible to use these products to manage non-electronic records stored externally in addition to the electronic information objects stored in and under the control of the document management or repository products.

Terminology

1. Record

The computer industry is developing a new class of information technology products designed to organize, store, retrieve, and manage such electronic expressions of information as textual memos and reports, sound recordings, scanned images, and computer software. As a group, the information expressions are called "documents," or "objects." The latter tends to be a broader term, to include computer software. Both my include sound recordings, images, and what are being called "compound documents" and "multimedia" documents or objects. The products being developed are usually called object repositories or document repositories or document management systems or document storage and retrieval systems.

2. Record Management System

Throughout this notice, the term "record management system" is used broadly to include all software products intended to store, retrieve, and manage electronic documents and information objects. It is intended to encompass such products as those that are called "object repository," "document repository," "document manager," and "document storage and retrieval system." These products may be standalone or they may be integrated with other products in an office suite. They may have their own directory, or they may share directory services with other software products with which they are integrated. What distinguishes them is their functionality of receiving documents or information objectswhat this notice calls "records", storing them for future retrieval, use, and disposition, and also managing their integrity, access, and life-cycles.

Background, Purpose and Rationale

Like many private sector enterprises, Federal Government agencies are reengineering their programs, missions and administrative activities to perform them faster, better, and at less cost. In general, this means replacing paper-based processes with electronic, computer-based workflows. Examples include the electronic commerce programs, and electronic submission of regulatory reports and filings.

As activities are migrated from paper to electronic workflows, transactions, and submissions, information objects pass between different software environments. Those records must be identified and described not only to support search and retrieval, but also to substantiate their trustworthiness in

legal proceedings and support their transfer to the National Archives should such transfer be required.

Federal Government agencies will be procuring record management products, both COTS and non-COTS, some of which will be stand-alone and some of which will be integrated with such creation software as word processing, email, and workgroup computing. Thus, the possible interfaces between the software used to create records and the software used to store and retrieve them can very from many different packages bought from many different vendors in many different procurements, to a single integrated suite of software bought at one time in one procurement from one contractor.

This proposed standard would enable Federal agencies to avoid reinventing in every procurement or system installation the identification data for messages, letters, images, etc., and the way that data is recorded and arranged. It will avoid the necessity for suppliers of software products to customize their products differently for different Federal agencies, or for Federal agencies to engage individually in complex integration efforts and to develop agency-unique solutions to a requirement common to all.

Issues

1. Basic Architecture and Applicability

The Record Description Record (RDR) is a set of descriptive attribute that are identified, arrange, and bound in a prescribed manner to whatever is being described. The attributes are sometimes referred to as metadata, because they identify and describe the record, and may or may not be a part of it. The RDR is itself called a record because it a logically-related set of discrete data elements.

Whenever a record is created using a computer, the creating software would be expected to generate a corresponding RDR. That RDR would be passed to a record management system along with the record itself. For records created and stored outside the computer environment, e.g., non-electronic records or electronic records stored "offline," the RDR information may be entered manually into a record management system, thereby using the system to manage records in general, without restriction as to the record media. In essence, the FIPS would be specifying a standard record to be used to describe other records of many different kinds.

The RDR is envisioned as comprising three sets of data elements. The first is a small set that wou8ld be mandatory in