all RDRs and would apply universally to all records, regardless of their nature or content. The second is a small set that would be mandatory for certain classes of records, or conditions that apply to them. An example would be records sent electronically from one party to another, as contrasted with those that are printed and communicated by hand, mail, messenger, or facsimile. The third is a potentially large set of optional data elements to be specified by individual agencies.

This approach would yield a single RDR standard that would prescribe how the data elements are identified, arranged, and represented, and how the RDR for an electronic record is to be bound to the record it describes. It presents two issues on which public comment is desired. One is whether it is reasonable to establish a single RDR standard for all applications, e.g., word processing, e-mail, voice-mail, groupware, etc. The second is whether the three-level specification of data elements is appropriate.

# 2. RDR Binding

There must be some binding between an electronic record and the RDR that describes it. Because of the different ways in which record management systems work, the actual RDR contents are likely to be handled differently, stored differently, and used differently in the various proprietary products. The RDR contains the kind of descriptive data that these systems put in their directories, if they have directories. To a great degree, the RDR may be viewed as being a support to or enhancement of the directory functions of those record management systems that have directories.

Record management systems need to know how the RDRs for electronic records will be delivered to them whether they will come as physically separate records, as headers, or as trailers. If this aspect is not standardized, then software products that create records would be free to create the corresponding RDRs in any way whatsoever. A standard approach could be established by which an RDR is bound to what it describes, so that record management system products can accept records from any source and understand their accompanying RDRs.

The RDR standard is seen as essential to support a Federal agency's mix-andmatch of software products from different vendors. However, in the case of integrated office suites where the passing of a record from the creating software to the storing/retrieving software is handled internally or where the record is created and stored in just one place, a standard for data element identification and arrangement and for object binding may not be needed, and when adopted might not necessarily apply. However, the RDR information content would still be necessary. When a record is transferred out of a record management system, to either another record management system or to the National Archives, the accompanying RDR would have to be bound according to the standard.

Both implementors of software products that create records and implementors of record management system software products are asked to comment on how binding should be accomplished, and why. Prospective implementors are invited to propose specification language.

# 3. E-Mail Receipt Data

Just the conduct of electronic commerce and regulatory activities—let alone intra-agency and inter-agency communications—requires that agencies keep data about the origin and receipt of electronic transactions and submissions. Much of that data is generated internally by e-mail software packages.

The treatment of e-mail receipt data poses a special binding case. An e-mail message may be sent to one or more receivers, who may receive it at different times, or not at all. At some point, the e-mail system may transfer the message and its accompanying data from its own message store to a record management system. If some receipt data for that message is generated in the e-mail system after the message to which it applies has been transferred out, there is a question about what the e-mail system should do with that subsequent receipt data. It could, of course, be purged by the e-mail system. Alternatively, it could be put into an RDR and passed out to the record management system. If put into an RDR and passed out, the record management system would need to link it to the message to which it applies, and for which one or more RDRs already exist.

Both implementors of e-mail software and implementors of a record storage software are asked to comment on how this issue might be resolved, and are invited to propose specification language to address it.

# 4. Data Element Identification

The RDR will be a set of data elements. A standard mechanism must be established to identify the elements that are present, because the record will be a combination of mandatory and optional data elements. If a record management system is receiving records from e-mail, word processing, voicemail, electronic commerce, etc., it will be receiving different RDRs depending on which package created the record, and perhaps also on the kind of record being stored. Thus, the format of the RDR must be standardized in a fashion analogous to a message header or a file label. Because there are many possible ways of formatting RDRs, the lack of a standard format would result in the creating software packages putting out RDRs that record management systems might not understand.

Comments are desired on how the RDR should be formatted, and how data elements should be identified and represented, and why. Prospective implementors are invited to propose specification language.

### 5. Universal Mandatory Elements

In general, these elements will address the questions of (a) what kind of record it is, or what software was used to create it; (b) which individual or organization created it; (c) when it was created; (d) what it deals with; and (e) what unique identifier(s) has been given to it. With respect to these and all other data elements, relevant existing FIPS for data element representations would be expected to be used. Representation standards would be established only for those elements for which such Federal standards do not presently exist.

Comments are solicited on the specific data elements that should be considered to be universal and mandatory. Their selection criteria are (1) their importance in record identification and description, and (2) their applicability across the broad spectrum of software used to create records of different kinds.

#### 6. Conditional Mandatory Elements

Conditional mandatory elements are those that would be prescribed for records based on such characteristics as their application of origin, their storage media or location, or some statutory or regulatory requirement. The condition of greatest immediate concern is electronic communication, where the process of communication adds its own dimensions of time and place. Examples would be electronic mail, file transfer, and the many other applications that exist at the application layer of a multilayer data communications reference model.

As mentioned above, electronic commerce and electronic submission of regulatory reports and filings necessitate the inclusion of "transmission" data in the RDR for an electronic mail message. It is expected that these activities will necessitate a comparable requirement in