

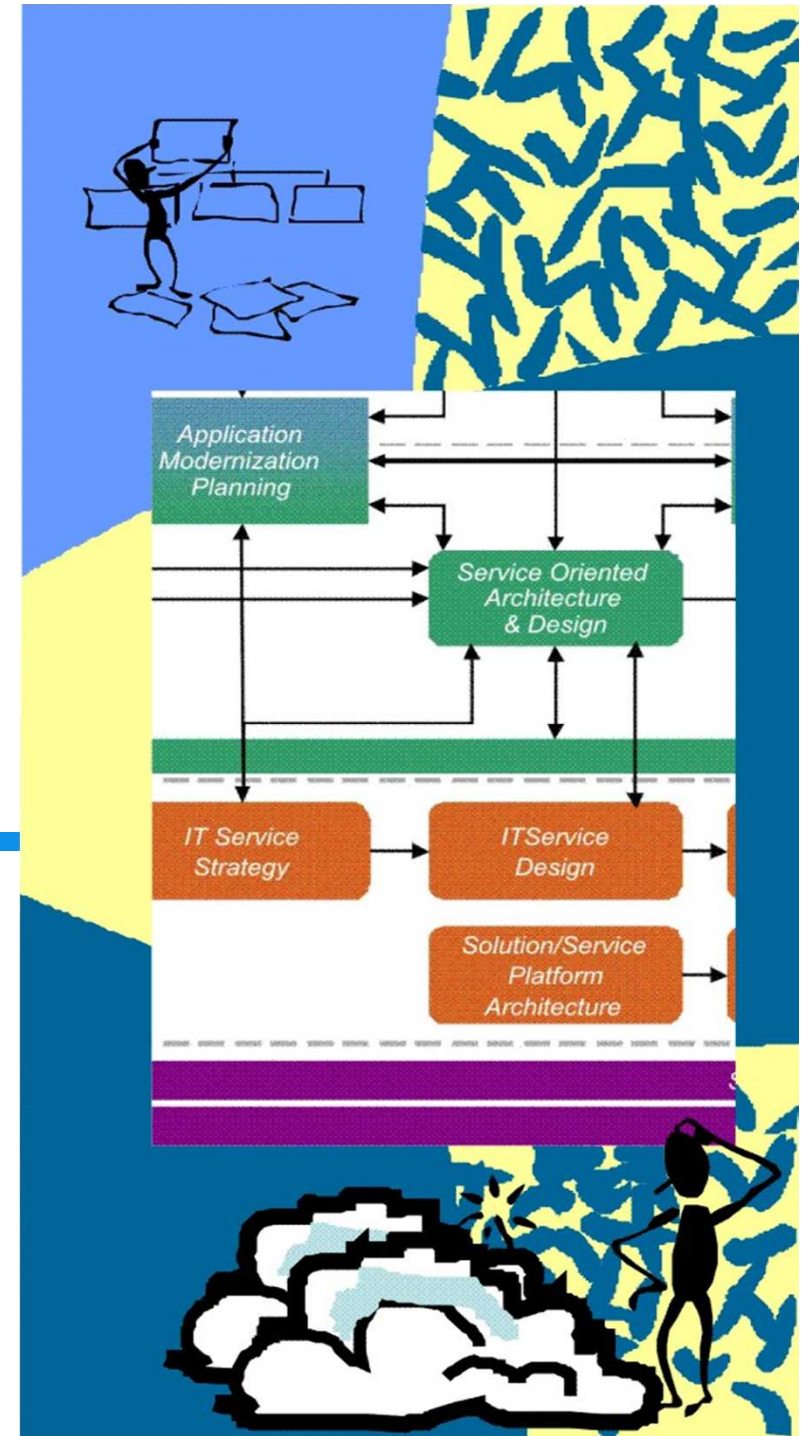


Specialists in Service Oriented
Application Modernization

Records Management Services as a Framework for Management of Electronic Health Records

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Everware-CBDI Snapshot

Worldwide SOA Reputation

- Keynote Speakers on SOA
- CBDI Forum Website: over 25,000 subscribers
- SOA Best Practice Framework and Knowledgebase
- SOA Metamodel Submission to OMG

Authors/Publications

- CBDI Journal (120+ Editions)
- Articles (eg, EA Journal, Microsoft Journal)
- White Papers (eg, Federal CIO Council, IAC, AFEL)
- Books (eg, Service Orientation, Information Modeling)



Leadership in Advisory Groups & Standards Bodies

- **ACT/IAC**
 - Chair: EA-SIG/Services Committee
 - Lead Role on Practical Guide to Federal SOA
- **Federal SOA Community of Practice: Co-Chair**
- **Object Management Group (OMG)**
 - Co-Chair: GovDTF
- **Instruct on EA & SOA**
 - National Defense U/EA Program
 - Industry Conferences
 - Public/Private Courses
 - eLearning Curriculum

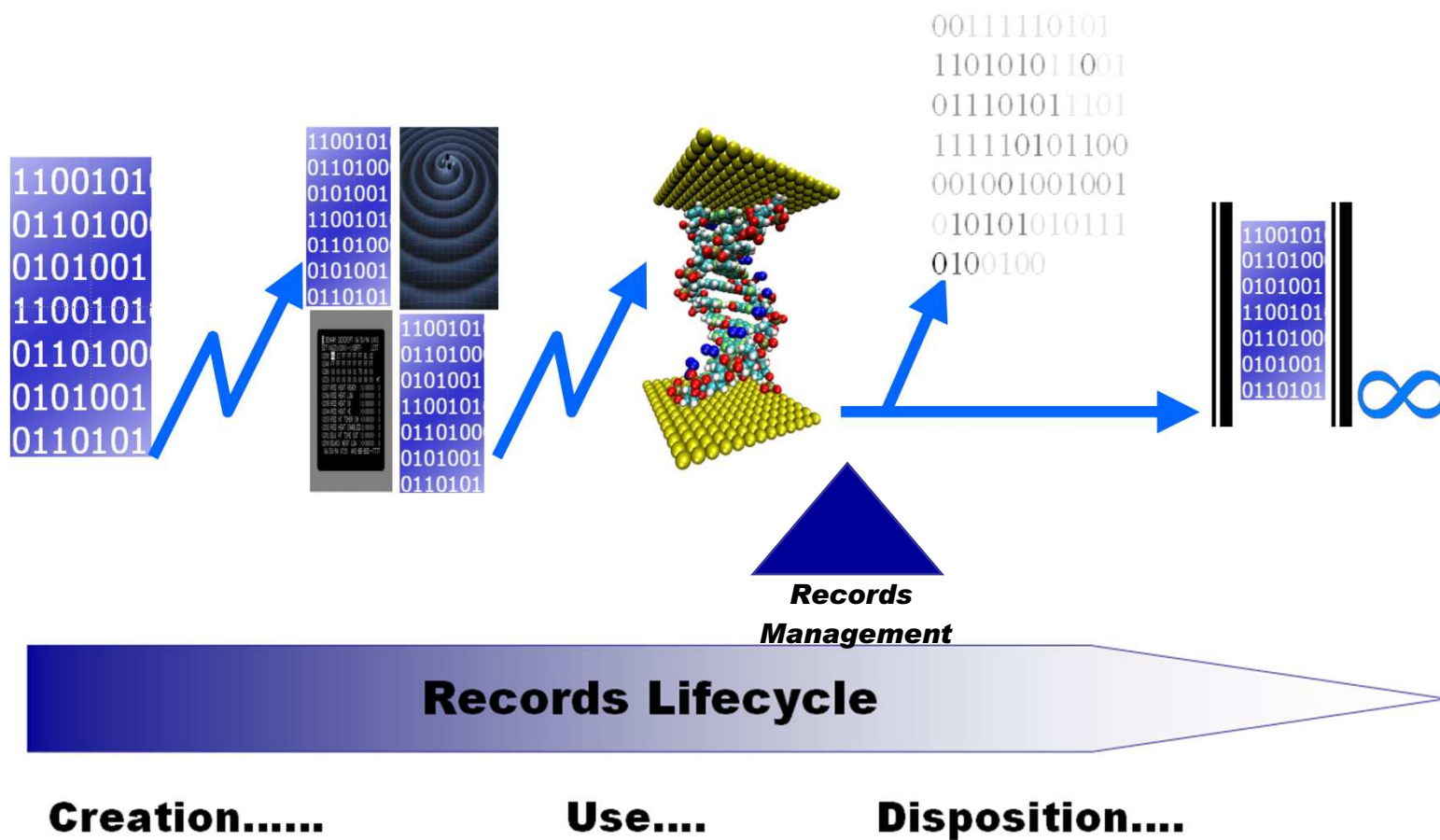
Government & Commercial Consulting

- **Enterprise/Segment Service Architecture**
 - Service Portfolio Transition
- **Service Management & Governance**
- **Service Oriented Application Modernization**
 - Model-Driven Architecture & Development
 - Service Harvesting & Provisioning
 - Business Process Modeling
 - Service Assembly, Orchestration
- **SOA Adoption**
 - Maturity Assessment & Planning
 - Process Improvement
 - Capability Development

What We'll Talk about...

- **Background on Records Management and Records Management Services (RMS)**
- **Overview of the RMS Specification**
- **The synergy of RMS and Electronic Health Records**

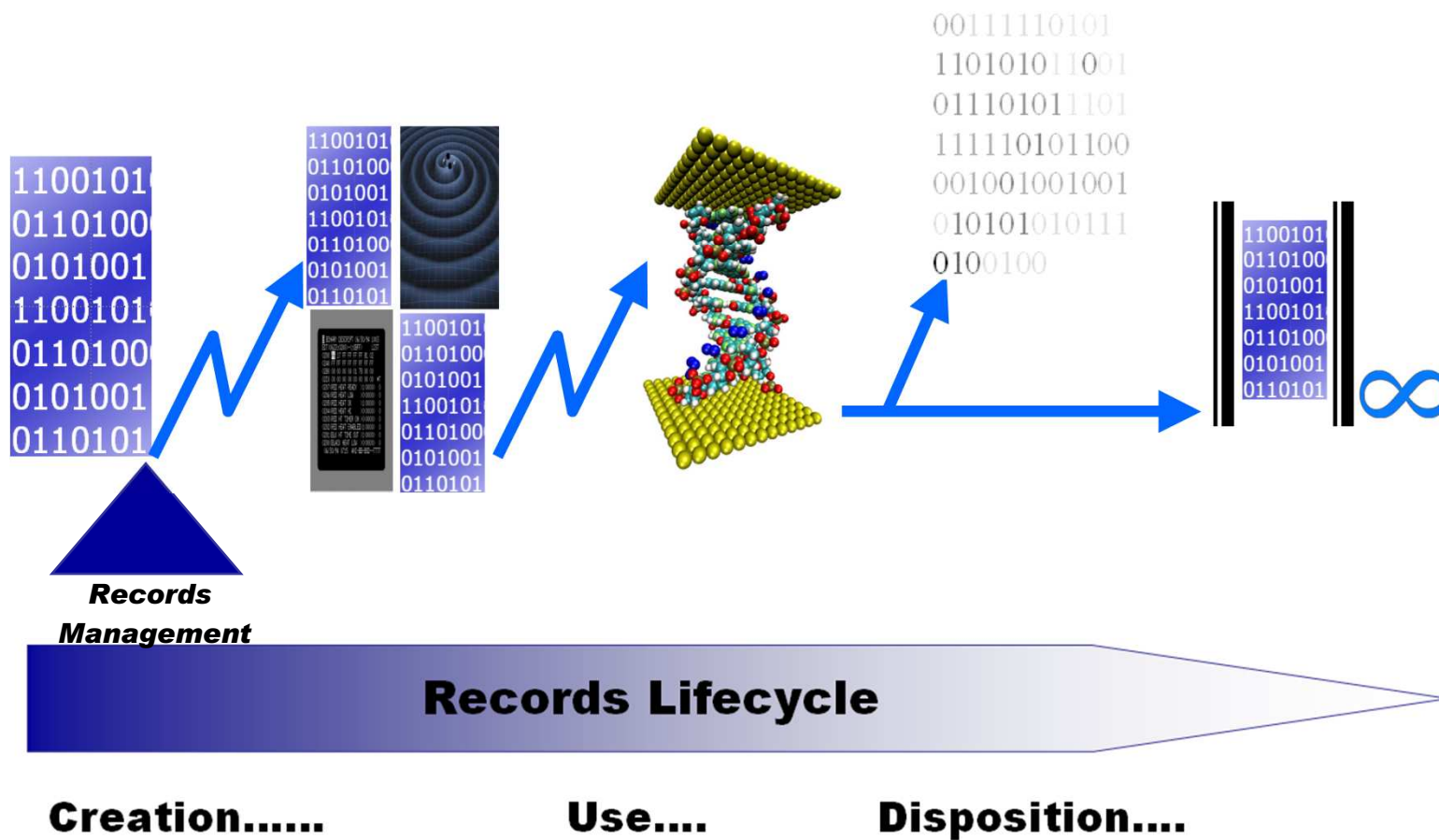
Where we *(usually)* start Records Management...



Result as been Monolithic RMAs

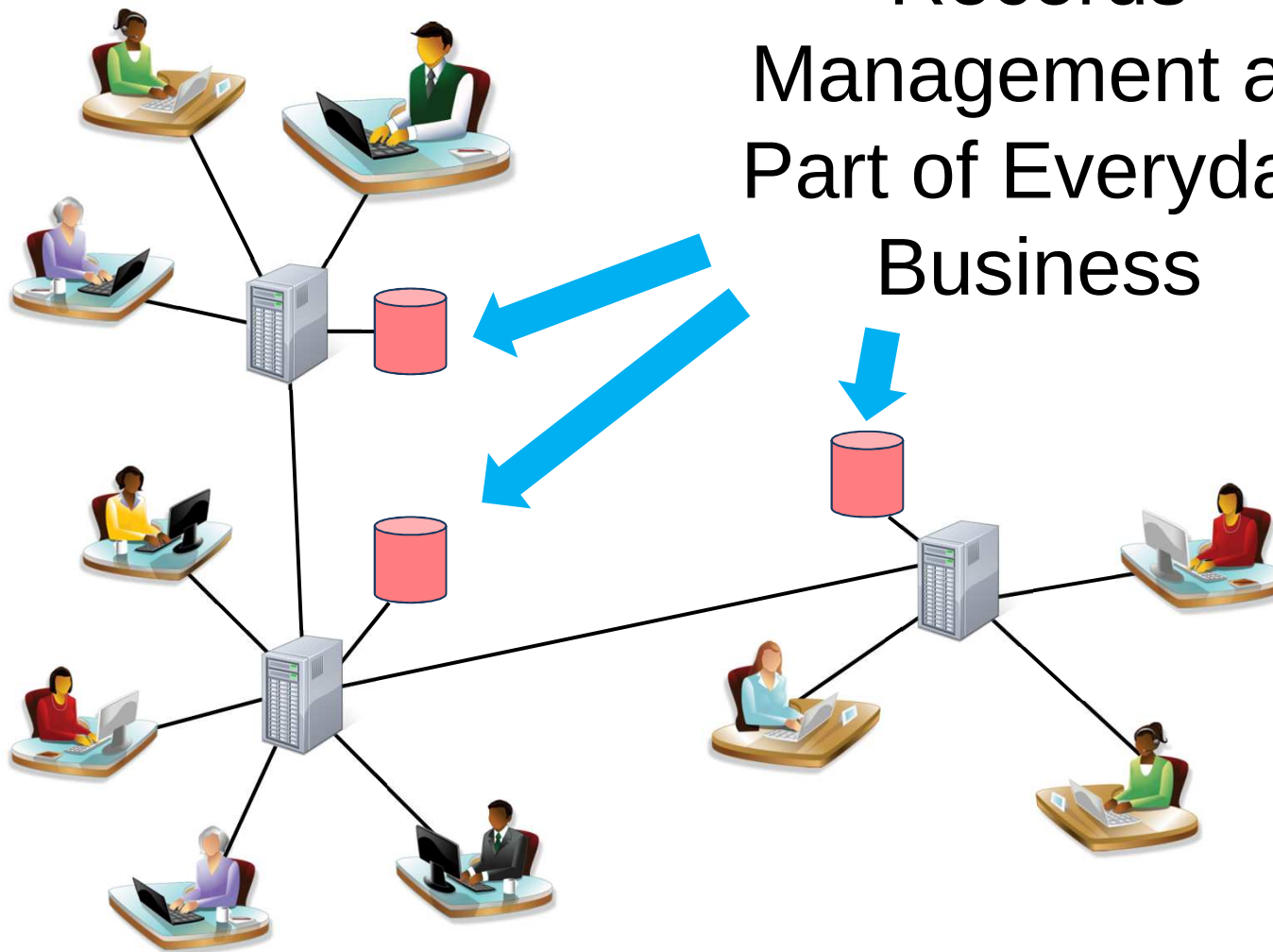


Where we want to start Records Management...



That Requires a Different Vision: Records Management Services

Records
Management as
Part of Everyday
Business

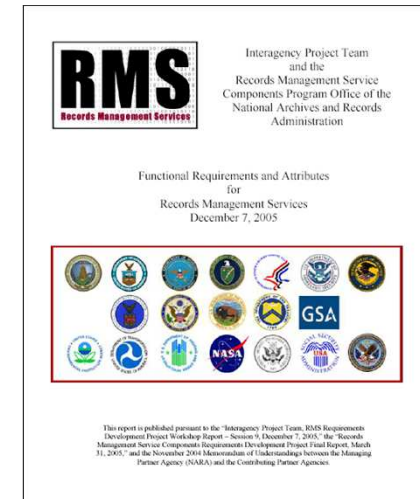


What are Records Management Services (RMS)?

- *Software-based services that support the creation, management, transfer, and destruction of electronic records within a computing environment.*
- The ***Next Generation*** of Records Management...
 - NOT an RMA but could be used by RMAs,
 - Supports “*management in place*”,
 - Supports Records Management as an aspect of a *distributed computing environment*,
 - *Service oriented and Cloud Compatible*

Where we started...The Functional Req

Facilitated by Daryll Prescott representing
the National Archives and Records Administration,
19 US Federal Agencies Came to Consensus on the
***“Functional Requirements and Attributes for
Records Management Services”
December 7, 2005***

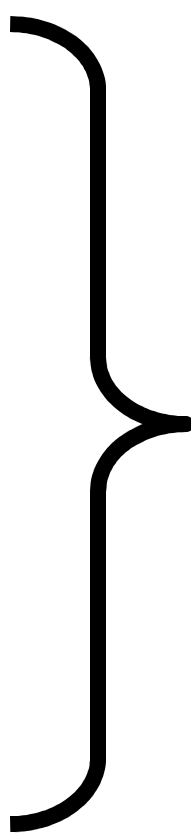


The Target Scope...

- ***Core records management activities***
- ***Based on fundamental archival theory and current best practices in Record Management***
- ***Applicable across any government or industry sector***
- ***No assumption as to when or what to set aside as a record - business process owner is responsible for that***
- ***Services will be used to manage the record for the remainder of its life-cycle***

Records Management Services includes...

- Record Capture
- Provenance
- Category
- Authenticity
- Case File
- Disposition
- Reference



These services cover the life-cycle of the record from **capture** through **management, use, and disposition**

The Next Step – The Object Management Group

- NARA brought the Functional Requirements to the Object Management Group's Government Domain Task Force (Gov DTF)
- GovDTF issued an RFP based on the Government Requirements, but added...
 - Request for a **Web Services Platform Specific Model**
 - Request for exchange files for **Attribute Profiles** and **Import/Export**
- **Joint Submitters Team Responded to the RFP**
 - Led by National Archives
 - Facilitated by Larry Johnson, TethersEnd, GovDTF Co-Chair
John Butler, Everware-CBDI, GovDTF Co-Chair
 - Participation from Federal Agencies and IT Vendors
(DoI, Treasury, CA, CSC, Lockheed Martin, Visumpoint, ARMA International)

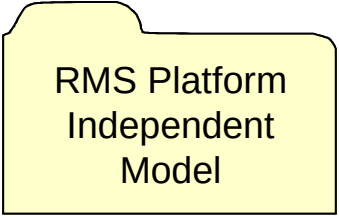
Where are we now...

- **Version 1.0 of RMS issued in March 2011**
- **Revision Task Force (RTF) formed to address any future issues**
- **NARA's Ongoing Roadmap with the GovDTF**
 - Add compliance points;
 - DoD 5015.02 support;
 - eDiscovery;
 - auto-Categorization; and
 - Preservation.

The RMS Specification Contains...

- **Platform Independent Model**

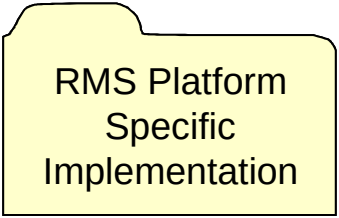
- Domain Models: Semantic Domain Model
- RM Services: Service Model



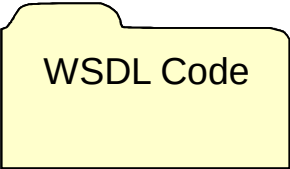
RMS Platform
Independent
Model

- **Platform Specific Implementation**

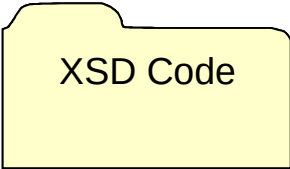
- Non-normative Platform Specific Model
- WSDL Definitions
- XML Schema Definitions



RMS Platform
Specific
Implementation

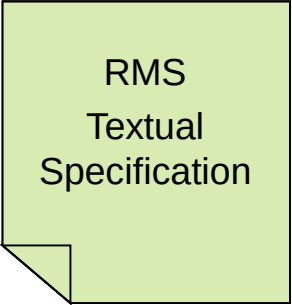


WSDL Code



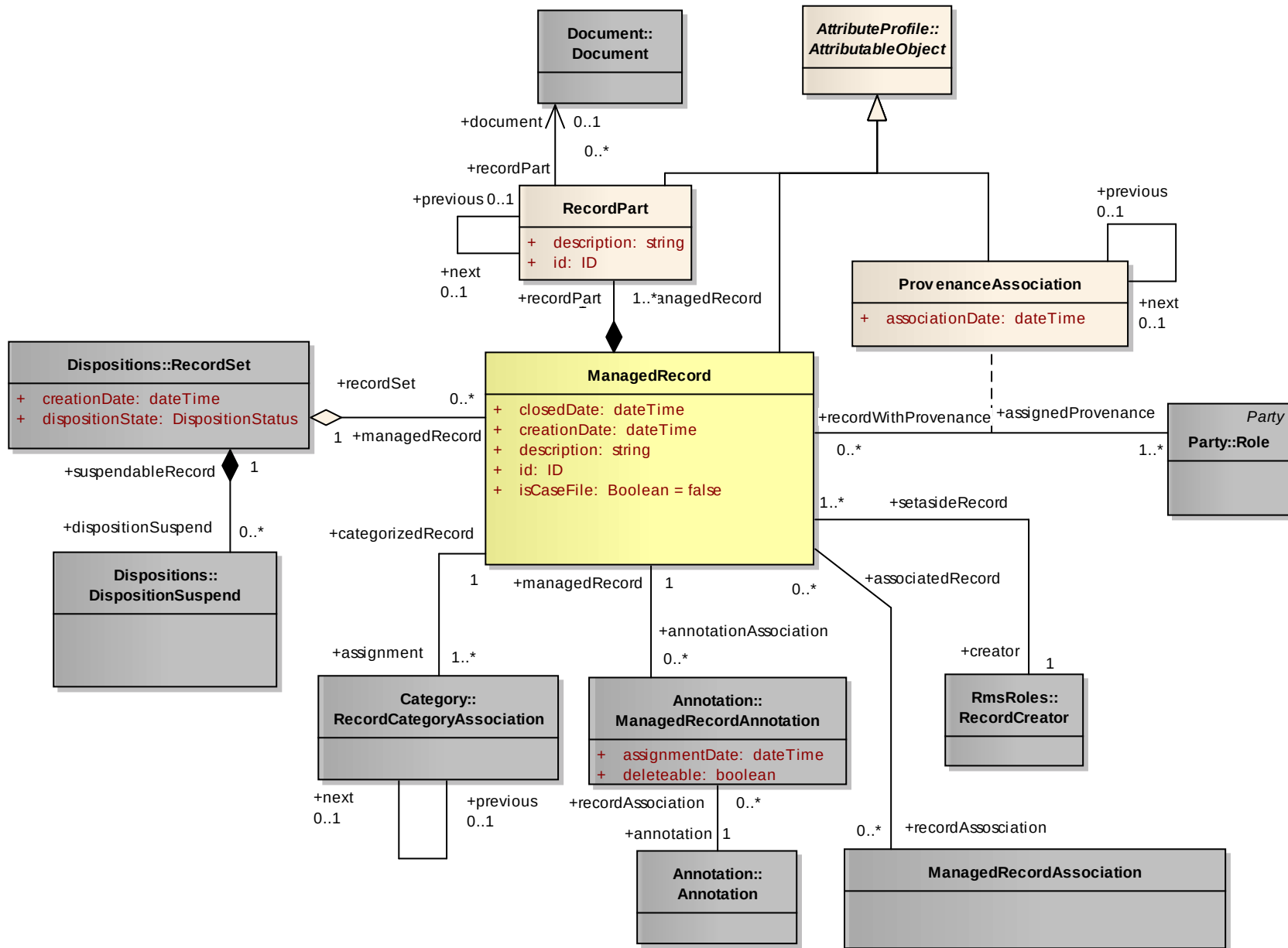
XSD Code

- **Textual Specification**

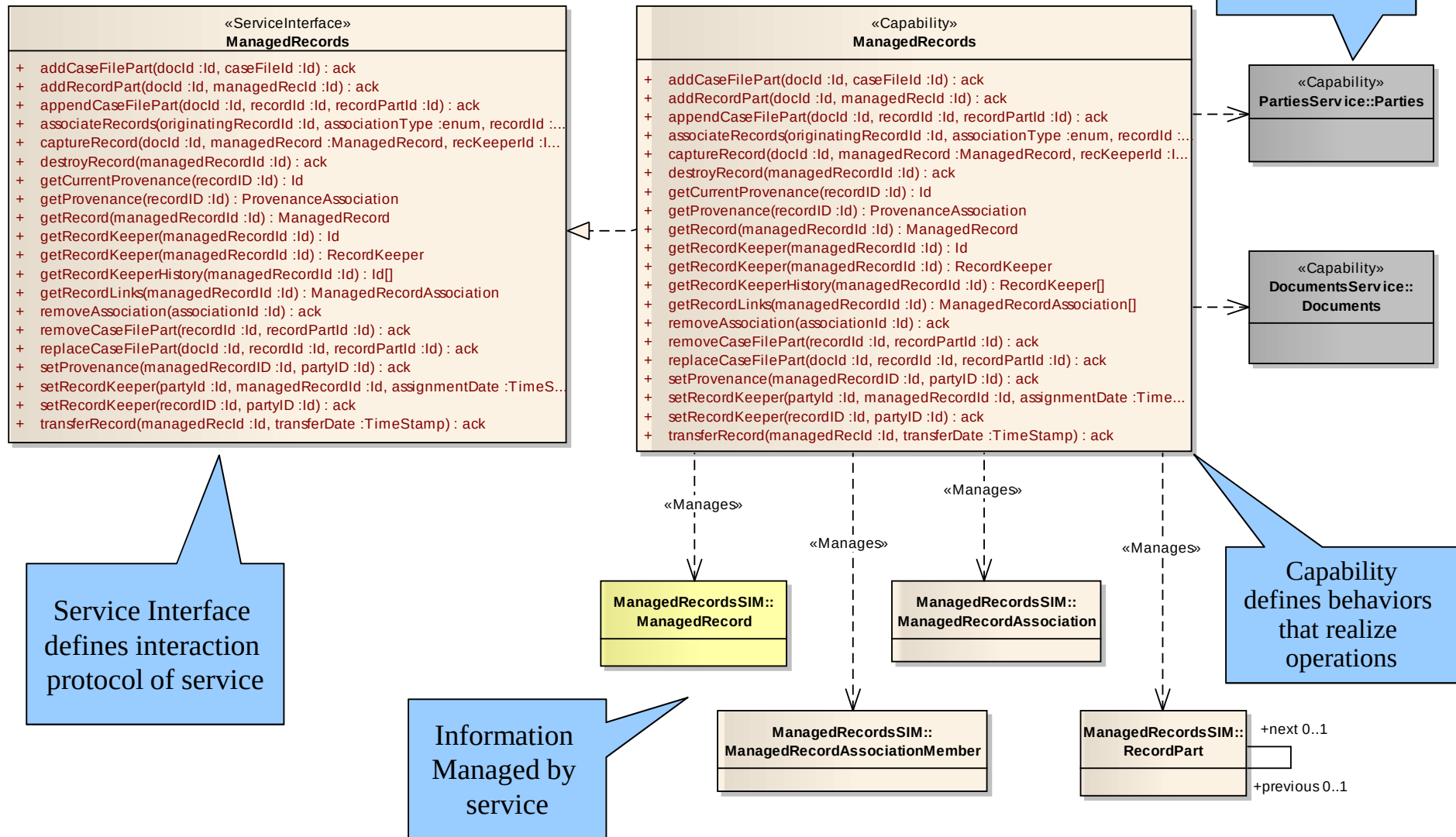


RMS
Textual
Specification

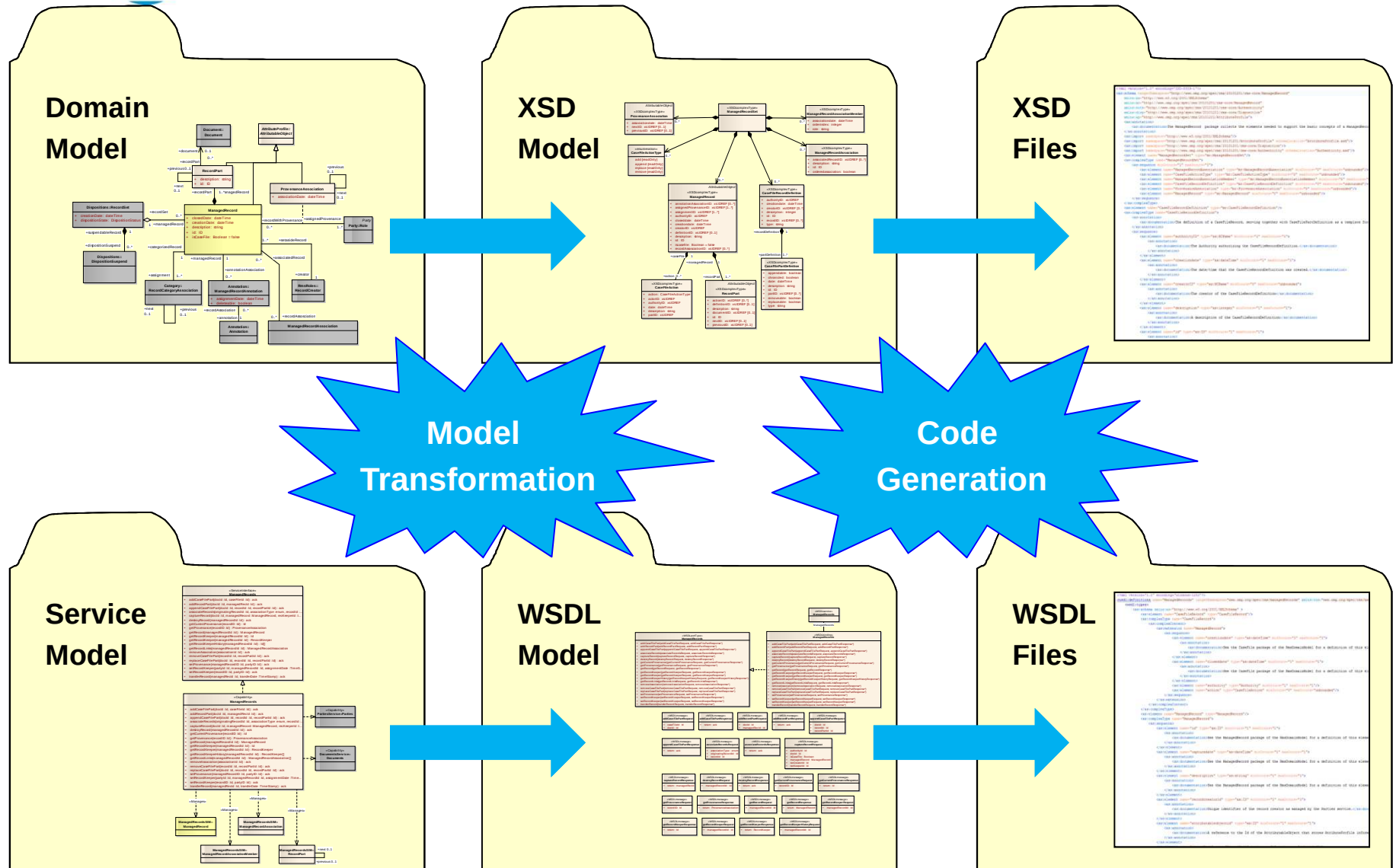
Domain Model Sample: Managed Records



Service Specification Sample:



Model Driven Development Process



How do RMS & EHR play together?

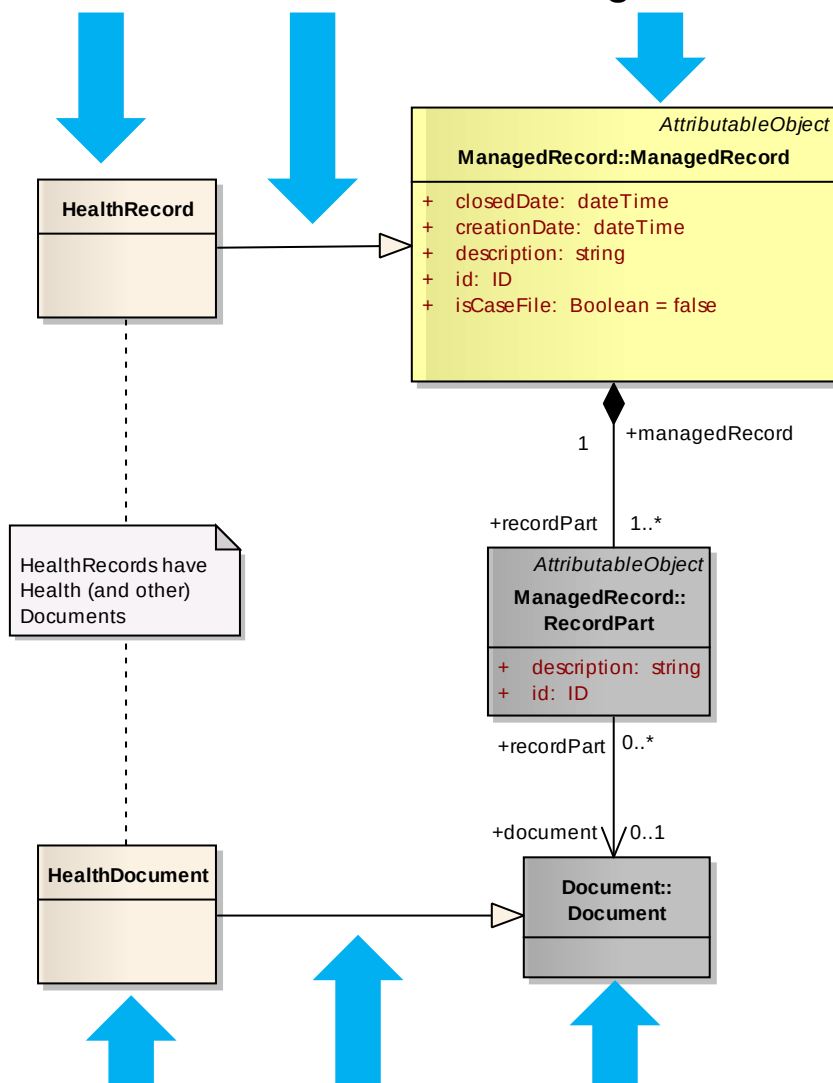
- If Electronic Health Records *are Records...*
...Then RMS should be applicable!
- Key Capabilities:
 - Attribute Profiles, Case Files, Provenance...
- Potential approaches
 - *Direct Extension* – Direct linkage of a Health Record Standard to RMS
 - *“Encapsulation”* – Embedding health documents inside RMS records

Key Aspects for Electronic Health Records

- **Attribute Profile: Configurable Attribution of Records**
- **Case Files: Support for Dynamic Case File Structures**
- **Provenance: Tracking the Chain of Custody**
- **Record Content Agnostic: No restriction on the contents of Records/Case Files**
- **Service Definitions for the Basics: Record capture, categorization, annotation, linkage, disposition, and authentication**

Extension Approaches – Direct Extension

HealthRecord “Is a Kind of” ManagedRecord

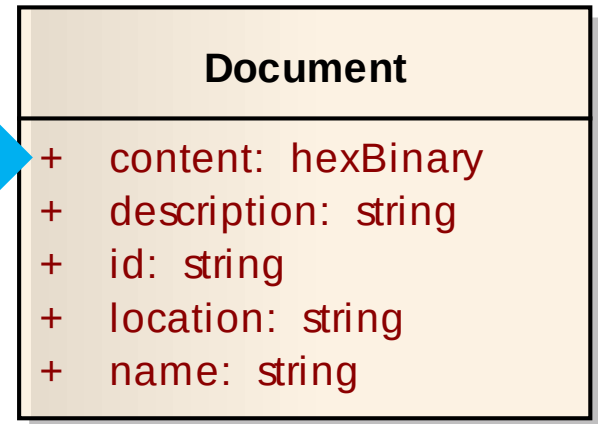


HealthDocument “Is a Kind of” Document

Implications

- Any message that contains **Document** can contain **HealthDocument**
- All service operations automatically handle **HealthDocuments and HealthRecords**
- RMS Repositories can become EHR repositories
- HealthRecords can be managed with other types of ManagedRecords

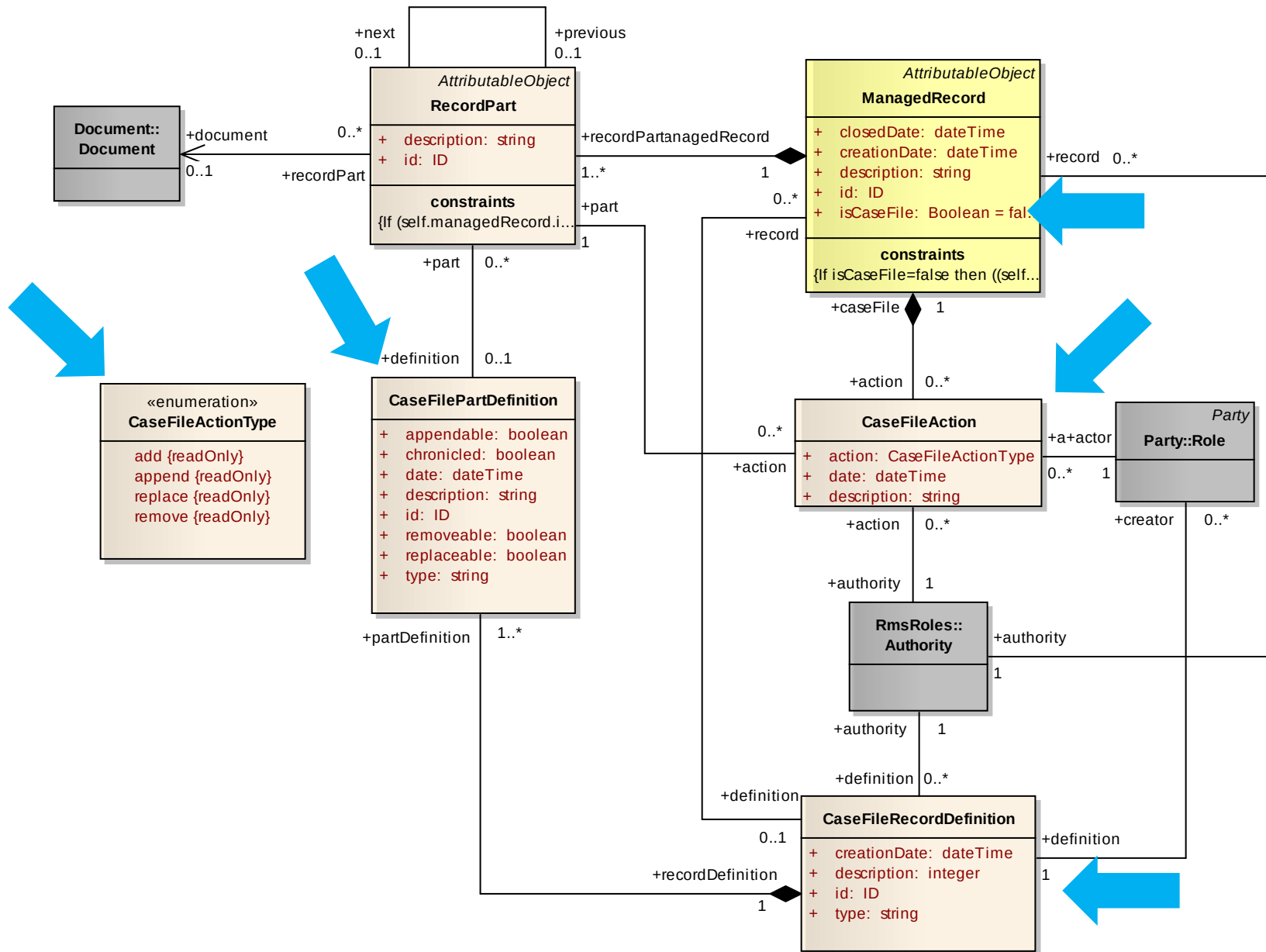
Contents of RMS
Document is just a
“bit string”



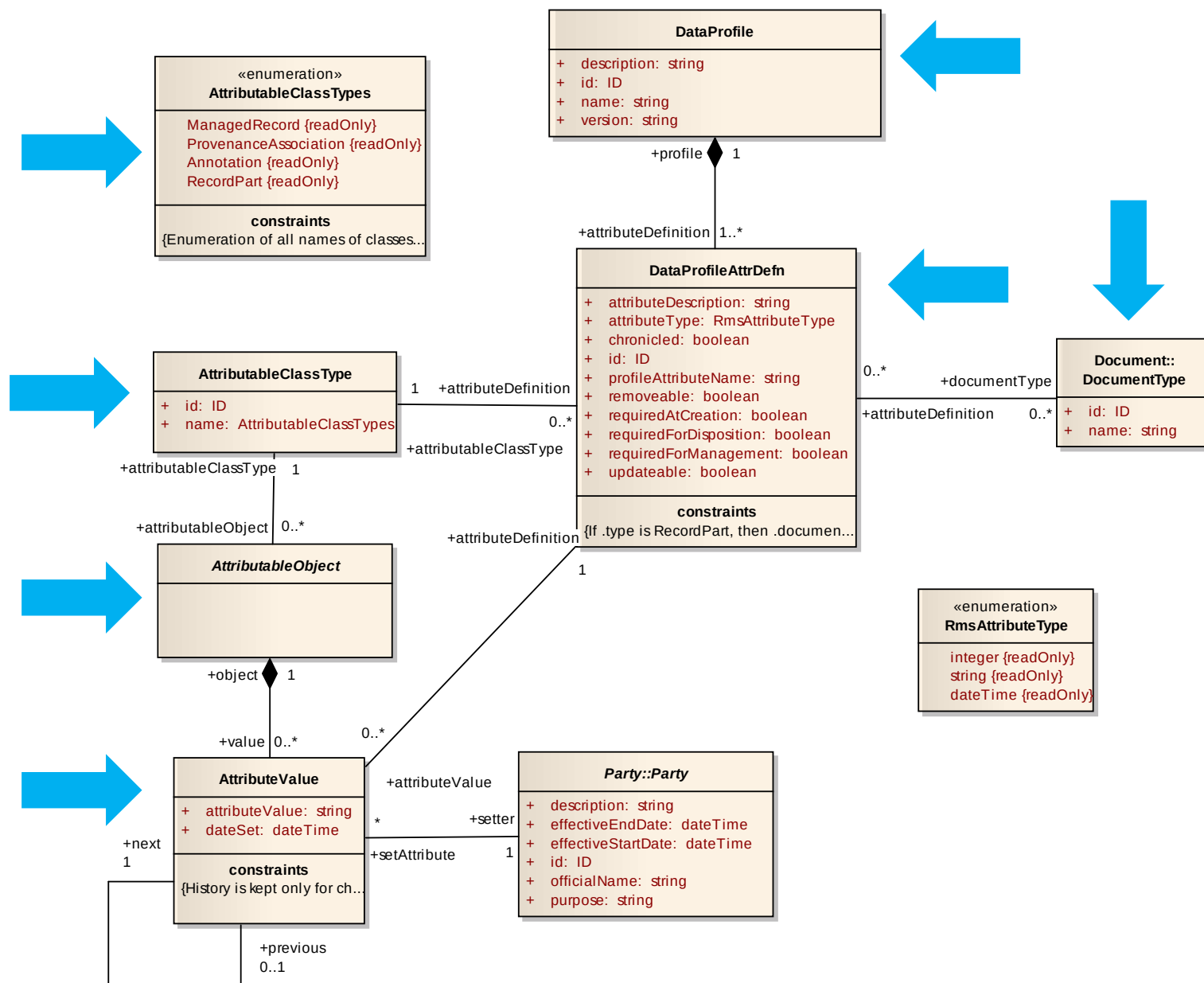
Implications

- ***Any type*** of document can be “encapsulated”
- *Again:*
 - All service operations automatically handle these records
 - RMS Repositories can become EHR repositories
 - Health records managed with other types of documents

Case Files in RMS



Attribute Profiles



What does that mean for EHR?

- Supports whatever health documents required - prescriptions, test orders and results, doctors' observations, diagnoses, notes, and etc.
- Changes to the case files and case file parts based on business rules & regulations
- Custom *Attributes* added to Records or Record Parts in predefined *Profiles*

The Recap...

- RMS is the ***Next Generation of Records Management***
- ***Broad consensus*** of Public and Private sectors
- Supports...
 - ***Configurable Attribute Profiles***
 - ***Case files***
 - ***Record Provenance***
 - ***Any content type***
- Easily extended to support ***Electronic Health Records***



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