



## **Vermont Enterprise Architecture Framework (VEAF)**

Enterprise Content Management (ECM)

Strategy

-DRAFT-

## EA APPROVALS

EA Approving Authority:

&lt;Signature&gt;

&lt;Date&gt;

&lt;Printed Name&gt;

&lt;Position Title&gt;

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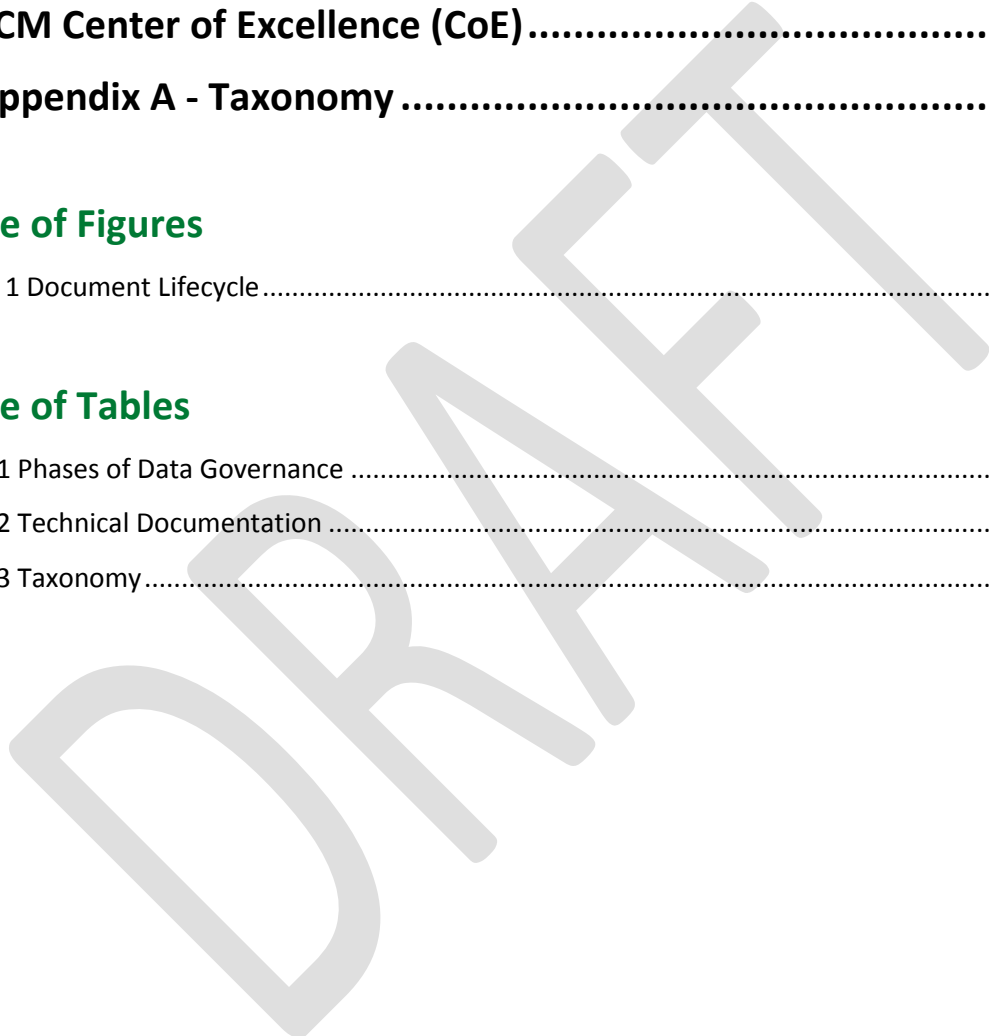
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# 1 ENTERPRISE CONTENT MANAGEMENT EXECUTIVE OVERVIEW

## 1.1 PURPOSE

The purpose of this document is to communicate how Enterprise Architecture Framework works in relationship to Enterprise Content Management, the scope of its governance, and how the it works to help the business to meet and satisfy its mission.

## 1.2 AUDIENCE

The intended audience is State of Vermont Business Executives, Business Analysts, and both Business and Enterprise Architects.

## 1.3 OVERVIEW

Enterprise Content Management (ECM) is a strategy for the capture, management, storage, preservation, and delivery of content to meet business needs. An effective ECM Strategy streamlines business processes by securely making content available to agencies and departments across the entire enterprise.

ECM supports the EA principles of Information Accessibility and Design Reusability as well as enabling greater accountability, information sharing and transparency. ECM when correctly applied increases the ability to find, share, and reuse information and promotes fact-based decision making by placing the right information in the right hands at the right time.

## 2 ENTERPRISE CONTENT MANAGEMENT STRATEGIC FUNCTIONS

An ECM strategy provides structure for accessible content and knowledge management.

### 2.1 ACCESSIBLE CONTENT

Content is useless without the ability to be accessed. This can be accomplished through the creation of a content repository, which provides a method for accessing content. Information stored in the content repository may be obtained as required to fill a variety of business needs.

### 2.2 KNOWLEDGE MANAGEMENT

Knowledge Management (KM) is the ability to connect the appropriate information with the correct team members, at the right time, in the right context. When properly implemented, it reduces the loss of organizational knowledge. A solid ECM plan ensure team members have the skills needed to implement KM to the enterprise's advantage.

KM increases efficiencies while working to support enterprise efforts through processes, procedures and policies.

### 2.3 DATA GOVERNANCE

Data is an asset of an organization. The valuation, creation, storage, usage, archival, and deletion of data and information requires the application of policies and accountability. Data Governance ensures that processes, roles, standards, metrics and models associated with data and information are managed for highest quality and accuracy.

### 2.4 SECURITY

General security principles associated with ECM focus on the access rights of data. How many people are involved in the creation, storage, modification, and the deletion of data? What are the risks associated with loss of data? Does the organization understand those risks? What controls exist over the data? Are there security policies identified for data and information used over 3<sup>rd</sup> party SaaS application providers?

## 2.5 ECM COMPONENT STRATEGY

Managing Enterprise Content is no small task, but if properly set up. Any Enterprise Content Management system should be created based on a foundation of best practices. Incorporating the following techniques at the start of an ECM initiative is essential to a successful plan to gather, store, and share information that support business efforts.

- **Inheritance** - Mature content management solutions enable content items to inherit characteristics of the parent area where they reside. This capability is your biggest ally in the challenge to maintain quality information in your repository. Using an inheritance schema lets you benefit from the automatic application of security, workflow, required metadata, categorization, and ownership rules to content.
- **Foundational Structure** - Create a foundation of areas within the repository on the basis of geography, LOB, or a nested combination of both. There are many good taxonomy guides available to help in this effort.
- **Contribution Privilege Control** - Require that users requesting permission to create new areas within the global repository state the business purpose, staffing resources, and effort required. Added accountability, helps to ensure the longevity of the repository.
- **Creation and Governance of Content** - Use information provided when contribution access is requested to ensure that proper security and workflow are applied. Use of an alias attached to areas in the repository to map ownership allows for updates to the alias when users change business units or leave.
- **Retirement** - With an analytic foundation to monitor all content activity, it is possible to act on performance thresholds established during the request of contribution privileges. For example, if a content item has not been referenced in five years, its inclusion in the repository should be reevaluated. Unused content clutters browsing and search results and drastically reduces usability.<sup>1</sup>

## 3 DATA GOVERNANCE

Data Governance is a key part of ECM, its functions to create a consistent set of rules regarding the use of data across the enterprise. The phases of a Data Governance Strategy include Strategic Planning, Ongoing Control, and reporting Key Data Metrics. These are broken down in the table below.

**Table 1 Phases of Data Governance**

Strategic Planning	Ongoing Control	Key Metrics
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<sup>1</sup> Snow, Michael. "Oracle WebCenter Best Practices" Blog post. *Oracle WebCenter Blog*. Oracle. 4 Dec. 2013  
[https://blogs.oracle.com/webcenter/entry/oracle\\_webcenter\\_best\\_practices](https://blogs.oracle.com/webcenter/entry/oracle_webcenter_best_practices)



- Determine enterprise data needs and data strategy
- Understand and assess current state data management maturity level
- Establish future state data management capabilities
- Establish data professional roles and organizations
- Develop and approve data policies, standards, and procedures
- Plan and sponsor data management projects and services
- Establish data asset value and associated costs
- Coordinate data governance activities
- Manage and resolve data related issues
- Monitor and enforce conformance with data policies, standards, and architecture
- Communicate and promote the value of data assets
- Data value
- Data management cost
- Achievement of objectives
- Number of decisions made
- Steward representation and coverage
- Data professional headcount
- Data management process maturity

### 3.1 DATA GOVERNANCE BEST PRACTICES

Not all data governance efforts yield expected results. All IT efforts face obstacles that can affect their value. This can include cultural, technical, political, and organizational challenges that can lead to resistance to changes that are required to move forward with the governance initiatives. Best practices that address these challenges are listed below.

#### 3.1.1 TAKE A HOLISTIC APPROACH BUT START SMALL

Data governance is an iterative process. Start with the people, politics, and culture, before moving on to data governance, data stewardship, and technology. However, start with an end in mind. Balance out strategic objectives and tactical compromises to ensure the overall program is moving towards the desired direction at reasonable pace.

### 3.1.2 DEFINE DATA STEWARDSHIP EARLY

Data Stewards are personnel whose role is to ensure effective controls and uses of data assets. They are responsible for ensuring that data within their domain is in compliance with the enterprise as a whole. Due to this, it is important to take the time to identify and build a team of data stewards that includes subject matter experts from all business areas.

### 3.1.3 ESTABLISH QUANTIFIABLE BENEFITS

An effective data governance program brings tremendous benefits to an organization, but these benefits might not be immediately visible. In order to ensure that ECM benefits are tangible, start by focusing on the relationship between key data elements and the business processes they support.

It is also possible to demonstrate the benefit of ECM by calculating the cost of managing data elements repeated and duplicated across the organization, and quantifying the business risk of data elements becoming unavailable or incorrect.

### 3.1.4 ESTABLISH, COLLECT, AND REPORT ON METRICS

Once benefits have been identified, establish a means of verifying the success of ECM. Determine measures at the beginning of a project and focus on quantitative metrics that support its objectives.

Metrics need to convey business values and some sample metrics include data value, data management cost (before and after), number of decisions made, and data management process maturity. A data governance KPI dashboard is a good way to automate the reporting of the progress<sup>2</sup>.

## 4 FILE, DOCUMENT, AND RECORDS MANAGEMENT

ECM is an approach to organize content within an organization, both in structured and un-structured forms. Within ECM, the management of un-structured data is accomplished with a combination of File, Document, and Records Management.

It is important to understand the difference between these focuses. In all cases roles based security and access must be considered.

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<sup>2</sup> Oracle. "Oracle Enterprise Architecture Framework: Information Architecture Domain". December 2012. <http://www.oracle.com/technetwork/topics/entarch/oea-info-arch-framework-dev-process-513866.pdf>

## 4.1 FILE MANAGEMENT

The focus of file management is the hierarchy of folders and their storage capacity. This can mean both physical and virtual folders. File management cares less about the contents of the folders, and focuses instead on the labeling of folders and files.<sup>3</sup>

## 4.2 DOCUMENT MANAGEMENT

The focus of document management is on the day-to-day capture, storage, modification, and sharing of physical and/or digital files within an organization.

The goals of document management are:

- Reducing loss and misfiling of documents
- Finding better organization strategies
  - Providing faster search and retrieval of documents
- Improving processes and efficiency surrounding documentation
- Reducing the amount of physical space required to store documents
- Providing effective controls on documents through their lifespan
  - Document tracking via:
    - indexing
    - tagging
    - Linking
  - Version control

## 4.3 RECORDS MANAGEMENT

A record is a specific type of document; the State of Vermont defines a record as "any written or recorded information, regardless of physical form or characteristics, which is produced or acquired in the course of public agency business."<sup>4</sup> Some, but not all documents become Records. Records Management is concerned with the policies and standards for maintaining records.

Records Management requires strong controls for evidentiary purposes.

The goal of records management incorporates document management and adds the following capabilities:

- To identify what records exist via a records inventory
- To apply required retention periods to stored items
- To identify the owner of each record

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<sup>3</sup> Bounds, Stephen "What's the difference between file management, document management and records management?" Know question. 3 March 2010.

<sup>4</sup> 1 V.S.A. § 317(b)

- To determine a chain of custody and audit trail of a record
- To assist in e-discovery issues and apply legal holds to records when needed
- To manage document disposal
- To develop and administer records policy and procedures
- To preserve records throughout their life cycle
- To track decisions and actions
  - Not simply documenting the decisions and actions, but also all information required to contextualize and justify them
- To demonstrate the authenticity and integrity of records kept

Content is useless without the ability to be accessed. This can be accomplished through the creation of a content repository, which providesBy providingaccessing content. InformationAccessing Content, informationcontent repositoryContent RepositoryData

## 5 STATE OF VERMONT ECM INITIATIVES

### 5.1 MICROSOFT SHAREPOINT ONLINE

Starting in 2015, the State of Vermont instantiated SharePoint Online as part of the State's Office 365 initiative. SharePoint Online satisfies the majority of current business requirements previously fulfilled by SharePoint 2007. New functionality introduced by SharePoint Online satisfies many of the State's requirements for record retention, document management, digital media management, records management, and web content management. As an enterprise service, SharePoint online uses the same access requirements as Office 365. It is important to note that Microsoft SharePoint Online is a collaboration tool and is/can be used for Enterprise Content Management through supplementing key ECM features and functionality such as scan, index, ocr, etc. with other applications. It is not a COTS ECM solution nor was it designed to be.

Microsoft SharePoint Online offers the following Business Capabilities:

- Discovery
- Management of content by policy, information architecture, and taxonomy
- Enterprise wide metadata
- Integrated with Office365
- E-Discovery (Bing)
- Real time document collaboration
  - Document workflows
- OneDrive – keeps records in sync. Access / Share anywhere
- 100s pre-existing applications available

- Web Content development
- Enterprise search capabilities
- 3<sup>rd</sup> party applications for Scanning, Faxing, OCR

## 5.2 ORACLE WEBCENTER

In 2013, The State of Vermont purchased Oracle WebCenter Content as part of the Health Services Enterprise Platform (HSEP) for use by the ADPC. As part of the Vermont Health Connect (VHC) initiative, paper applications for health care needed to be processed using as much automation as possible.

In addition to providing a document and records management system for VHC, the Agency of Human Services was interested in scanning and storing records once housed in the State offices in Waterbury damaged by flooding.

Oracle WebCenter Content adapters integrate with business applications providing access to unstructured content directly within an application's user interface. This allows businesses to leverage enterprise-class content management capabilities without requiring business users to jump between applications.

WebCenter Content key business capabilities:

- Document Management
- Capture and Imaging
- Optical Character Recognition (OCR)
- Business Process Management
- Records and Retention Management including DoD 5015.2-STD v3
- Digital Asset Management
- Web Content Publishing

WebCenter can be integrated with the following:

- Microsoft SharePoint
- Siebel
- WebCenter Portal
- PeopleSoft
- WebCenter Sites (Social)

### 5.3 ONBASE

The Agency of Human Services expanded its OnBase instance in 2009 to incorporate the Economic Services Division (ESD) document management and workflow needs. The system has grown since then, adding several other AHS departments as part of the recovery from Irene.

The primary functions provided by OnBase are Document storage and workflow. There is a heavy reliance on the Application Enabler module to integrate with the ACCESS line of business application to retrieve documents and assist with indexing. Other indexing enhancements are also in use, for example Barcode recognition and auto-fills.

Key Business features of OnBase include:

- Document management
- Capture and imaging (Scanner, COLD, DIP, import)
- Workflow
- Integration with line of Business applications (Application Enabler)
- Audit log
- API accessibility (web202)
- Reporting
- Large selection of expansion modules (i.e. SharePoint web parts)

## 6 ANALYSIS OF ECM WITHIN AHS

This section examines the Maturity of ECM within the State of Vermont. It is important to note that Governance is an important part of ECM and ensures the State aligns new initiatives with the guiding principles of ECM as well as fit tightly with business needs.

## 6.1 ECM MATURITY MATRIX

The table below depicts the Maturity Matrix for ECM. Currently the state’s maturity of ECM based on the analysis above is Stage 1. The State of Vermont wants to move to a much more advanced future state.

Stage =>	1 Initial	2 Managed	3 Standardized	4 Advanced	5 Optimized
Governance	<p>Agencies have different goals, Participants and actions are governed independently and no single person or agency is accountable for overall success</p> <p>Agencies train, plan, and are budgeted and funded separately</p>		<p>Agencies have different goals, Actions are governed independently, and no single person or body is accountable for overall success</p> <p>Some agencies train together for common activities,</p> <p>Some funding comes from a common budgeting action and source.</p>		<p>An integrated set of performance measures is analyzed and enforced by the governing body</p> <p>All involved agencies train together for the whole operation, funding for most activities comes from a common budgeting action and source.</p>
Organization	<p>Authority for content exists in the specific business areas but wields limited influence on other external business process</p>	<p>Ownership and stewardship of content may be defined in individual LOB</p>	<p>Business is engaged, a cross-functional team is formed and content managers and business analysts are explicitly appointed with clear responsibilities</p>	<p>The organization structure for ECM becomes institutionalized and viewed as critical to all business areas across all functions</p>	<p>ECM is a core business process and decisions are made with quantifiable benefit-cost-risk analysis from the business intelligence systems on the enterprise platform</p>
Process	<p>Business and EA collaboration is inconsistent</p>	<p>Loosely defined processes exist around key applications within LOBs, content related issues are typically dealt with reactively</p>	<p>Standardized processes and consistency are established across LOBs</p>	<p>Business takes full ownership for ECM content and policy making</p>	<p>Quantitative process improvement objectives for the organization are firmly established and continually revised to reflect changing business objectives</p>

## 6.2 CURRENT STATE OF ECM WITHIN VHC

While functioning, ECM requires optimization. WebCenter (WC) Capture is used for scanning materials received, recognition runs behind the scenes, and following their indexing materials are committed to WC Content. Requests to add item indexing specific to each program will require development.

VHC Materials received enter the Content Repository through a variety of ways. One way is through the Enterprise Portal. For additional information in regard to the Portal please refer to the Portal Strategy document. Information may also be received for processing at the ADPC (hardcopy application forms and supporting documents). There are approximately 300 different forms processed by the ADPC, for VHC there are approximately one dozen new forms.

A formal review of the current ECM implementation resulted in recommendations in these areas:

- Recognition Server Macro
- Oracle Document Capture Complete Backup and Restore
- General Capture Workstation Configuration
- Pick Lists provided in alphabetical order
- Production and Non-Production Drive Mapping
- Server Time Zones
- Auto-Populate Date Fields in Scanning Process
- Configuration Management – Scan and Index Workstations
- Retain Scan User ID
- Recognition and Commit Server Schedules

In 2012, the ADPC indexed four million pages of documents. The current state document lifecycle is illustrated in the document lifecycle below and is contrasted by the current state records lifecycle.



**Figure 1 Document Lifecycle**



**Figure 2 Records Lifecycle**



## 6.3 ECM CAPABILITY GAPS

Following are the areas of focus for capability gap remediation divided into ECM Knowledge Management (KM) and ECM Technical capability domains.

### 6.3.1 INFORMATION

- Develop an Enterprise ECM Model for key entities
- Develop common ECM services
- Reference architecture should include capabilities for ECM Components quality and audit
- Continue to apply data cleansing and associated techniques to ensure that the information provided is of the highest quality

### 6.3.2 INITIAL

- Authority for content exists in the specific business areas
- Ownership and stewardship of content defined in individual LOBs
- Individual ECM savvy champion(s) in the business in each LOB
- Loosely defined processes exist around key applications within LOBs
- Imaging services process large volumes of content that are touched frequently after the initial ingestion, but not thereafter the initial period
- Capture images & establishes the mechanism by which content is catalogued using skilled resources distributed throughout the organization
- Unstructured storage capability managed within a standard file system.
- Searching and publishing by Indices

### 6.3.3 STANDARDIZED

- Cross-functional team of content managers & business analysts with clear responsibilities
- Standardized processes established across LOBs
- Imaging extends capabilities with features such as annotations (black redaction, sticky notes) and the ability to easily retrieve and display a single page of a multipage document
- Quick search for content to be published and presented
- Structured storage in a database repository
- Manage both metadata and the content more uniformly than in a traditional non structured system
- Applications can be delivered universally to browsers
- Rights Management secures & tracks sensitive digital information everywhere stored and used

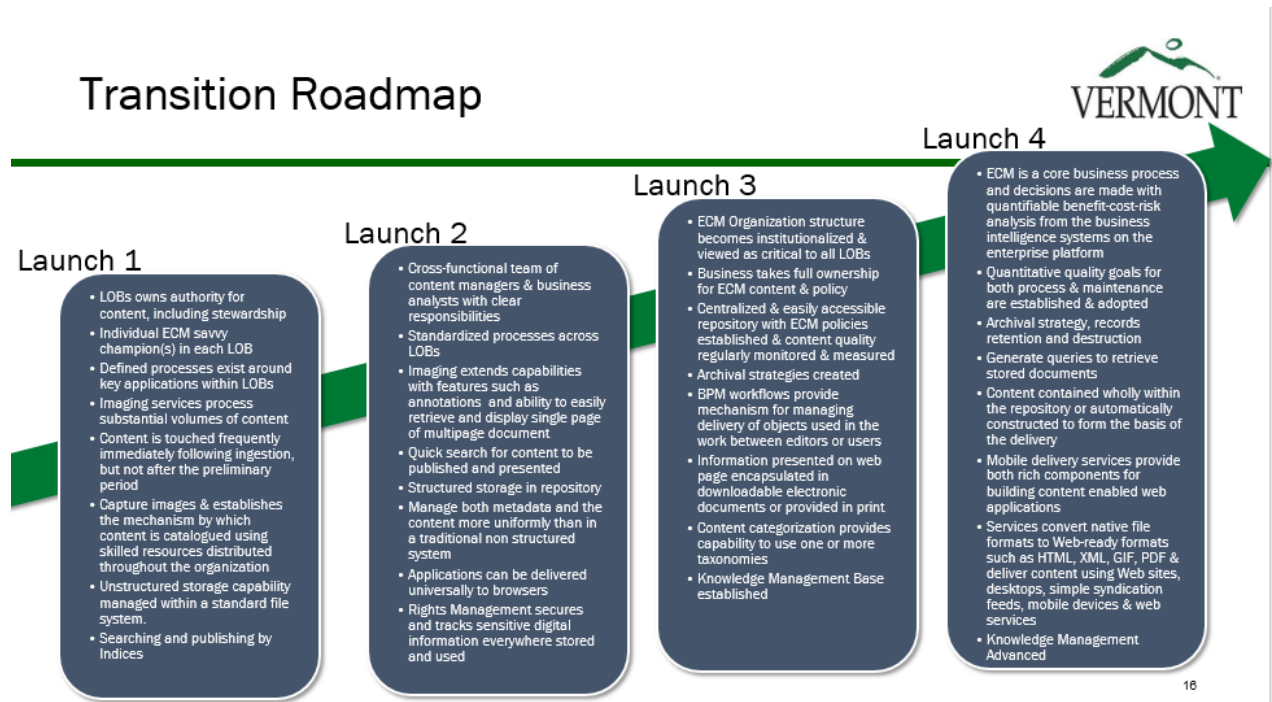
### 6.3.4 ADVANCED

- ECM Organization structure becomes institutionalized & viewed as critical to all LOBs
- Business takes full ownership for ECM content & policy
- Centralized & easily accessible repository with ECM policies established & content quality regularly monitored & measured
- Archival strategies created
- BPM workflows provide the mechanism for managing the delivery of objects used in the work between editors or users
- Information presented on the web page, encapsulated in downloadable electronic documents or provided in print
- Content categorization provides the capability to use one or more taxonomies

### 6.3.5 KNOWLEDGE MANAGEMENT BASE

- Optimized
- ECM is a core business process and decisions are made with quantifiable benefit-cost-risk analysis from the business intelligence systems on the enterprise platform
- Quantitative quality goals for both process & maintenance are established & adopted
- Archival strategy, records retention and destruction
- Generate queries to retrieve stored documents
- Content contained wholly within the repository or automatically constructed to form the basis of the delivery
- Mobile delivery services provide both rich components for building content enabled web applications
- Services convert native file formats to Web-ready formats such as HTML, XML, GIF, PDF & deliver content using Web sites, desktops, really simple syndication feeds, mobile devices & web services
- Knowledge Management Advanced

### 6.3.6 TRANSITION ROADMAP



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## 7 TECHNICAL DOCUMENTATION

Table 2 below, lists documentation and standards for use within the State of Vermont. The SoV has determined that these standards be part of the implementation for ECM.

**Table 2 Technical Documentation**

Title	Location
TA-SOA-005 Carrier Integration	<a href="https://inside.vermont.gov/sov/cto/ea/Technology%20Architecture/SOA(Old)/TA-SOA-005%20Carrier%20Integration.doc">https://inside.vermont.gov/sov/cto/ea/Technology%20Architecture/SOA(Old)/TA-SOA-005%20Carrier%20Integration.doc</a>
TA-SOAGOV-008 SOA Security Standards	<a href="https://inside.vermont.gov/sov/cto/ea/Technology%20Architecture/SOA(Old)/TA-SOAGOV-008%20SOA%20Security%20Standards.docx">https://inside.vermont.gov/sov/cto/ea/Technology%20Architecture/SOA(Old)/TA-SOAGOV-008%20SOA%20Security%20Standards.docx</a>
WebCenter	<a href="http://www.oracle.com/technetwork/middleware/webcenter/suite/overview/index.html">http://www.oracle.com/technetwork/middleware/webcenter/suite/overview/index.html</a>
WebCenter Portal	<a href="http://www.oracle.com/technetwork/middleware/webcenter/portal/overview/index.html">http://www.oracle.com/technetwork/middleware/webcenter/portal/overview/index.html</a> <a href="http://docs.oracle.com/cd/E29542_01/webportal.htm">http://docs.oracle.com/cd/E29542_01/webportal.htm</a>
WebCenter Spaces	<a href="http://docs.oracle.com/cd/E23943_01/webcenter.1111/e10149/planning_portal.htm#BJEJAIGB">http://docs.oracle.com/cd/E23943_01/webcenter.1111/e10149/planning_portal.htm#BJEJAIGB</a> <a href="http://docs.oracle.com/cd/E23943_01/user.1111/e15175/bpmug_pp_gt_strt.htm">http://docs.oracle.com/cd/E23943_01/user.1111/e15175/bpmug_pp_gt_strt.htm</a>
WebCenter Content	<a href="http://www.oracle.com/technetwork/middleware/webcenter/content/overview/index.html">http://www.oracle.com/technetwork/middleware/webcenter/content/overview/index.html</a>
WebCenter Sites	<a href="http://www.oracle.com/technetwork/middleware/webcenter/sites/overview/index.html">http://www.oracle.com/technetwork/middleware/webcenter/sites/overview/index.html</a>

## 8 ECM CENTER OF EXCELLENCE (COE)

A CoE is the only way organizations can deliver value to customers by way of cross-organizational business processes. As an asset of the State, business processes reflect the strategy of the business in so far as how the State fulfills their mission. The CoE helps coordinate, manage and control the business process initiatives. The CoE helps in executing the strategy by helping the State find redundant activities, limited use applications, single points of failure within the processes, and identifying areas of concern for interdepartmental process standardization. The CoE can keep processes from falling back into silo-ed models.

A Center of Excellence is a permanent competency center within an organization that supports the efficient implementation, enhancement, maintenance, and leveraging of ECM capabilities. When set up correctly, with well-defined plans and strategies, a Center of Excellence can help improve the efficiencies of designing, deploying, and maintaining new ECM solutions, while reducing efforts and risks and improving results.

When properly designed and managed, an ECM Center of Excellence can help make sure that new business solutions are planned, executed, and maintained in the most efficient manner possible. This efficiency helps speed time-to-market and reduces cycle times, while producing higher-quality solutions through the re-use of proven resources. Helping maintain focus on your individual solution needs, while ensuring business solution flexibility, also helps to ensure effectiveness across your enterprise.<sup>5</sup>

The CoE for ECM will promote the following:

- Improve efficiency
- Enable reuse of resources
- Application governance that fosters greater compliance with enterprise wide structured and non-structured data management
- Time-to-market solutions, specifically in the area of CCM and CRM

In order to implement a successful practicable CoE for ECM, an executive sponsor should be appointed. Having executive sponsorship can drive ECM initiatives across the enterprise. This in turn generates a positive working relationship across agencies and departments. The executive sponsor becomes the point of contact for the rest of the business during periods of high ECM and CCM activity; such as new application releases, adding a new agency or department on to the ECM, and during times of systemic failures that might affect the customer base.

By leveraging ECM capabilities, via a Center of Excellence efficient implementations, enhancements and maintenance are supported. While reducing efforts and risks and improving results a properly established ECM CoE can help improve the efficiencies of designing, deploying, and maintaining new ECM solutions.

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<sup>5</sup> IBM. "Enterprise Content Management and the Center of Excellence". IBM October 2008.

[ftp://public.dhe.ibm.com/software/at/swing/5\\_enterprise\\_content\\_management\\_best\\_practices\\_white\\_paper.pdf](ftp://public.dhe.ibm.com/software/at/swing/5_enterprise_content_management_best_practices_white_paper.pdf)

## 9 APPENDIX A - TAXONOMY

The following tableError! Reference source not found.; lists the acronyms and definitions used in ECM.

**Table 3 Taxonomy**

Acronym	Description
ADPC	Application & Document Processing Center
AHS	Vermont Agency of Human Services
AIA	Application Integration Architecture
API	Application Program Interface
BAIT	Business, Application, Information and Technology alignment
BGS	State of Vermont Department of Buildings and General Services
BI	Business Intelligence
BI/DW	Business Intelligence / Data Warehouse
BPM	Business Process Management
BPMS	Business Process Management Software
BPS	Benefit Processing Specialist (HAEU eligibility caseworker)
BRMS	Business Rule Management System
BU	Business Unit; any Statewide Agency or Department interfacing with the Enterprise Architecture Office under the direction of the CTO.
CDC	Centers for Disease Control and Prevention
CDM	Canonical Data Model
CMS	Centers for Medicare & Medicaid Services
CoE	Center of Excellence
COTS	Commercial Off-The-Shelf (Software)
CRM	Customer Relationship Management
CTO	Chief Technology Officer
DBMS	Database Management System
DDI	Design, Development and Implementation
DII	State of Vermont Department of Information and Innovation
DW	Data Warehouse
EA	Enterprise Architecture

Acronym	Description
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EAA	Enterprise Architecture Assessment, basic documentation prepared for all ITOP projects
ECM	Enterprise Content Management
EDA	Event Driven Architecture
EDN	Event Driven Network
EDW	Enterprise Data Warehouse, Education Data Warehouse
EIM	Enterprise Integration Manager
EMPI	Enterprise Master Person Index
EPMO	Enterprise Project Management
ERP	Enterprise Resource Planning
ESB	Enterprise Service Bus (software architecture model used for designing & implementing interaction & communication between mutually interacting applications in service-oriented architecture (SOA))
ETL	Extract, Transform, Load
FDSH	Federal Data Services Hub
G2B	Government-To-Business
G2C	Government-To-Consumer
G2E	Government-To-Employee
G2G	Government-To-Government
GSD	General Systems Design
HAEU	Health Access Eligibility Unit
HBE	Health Benefit Exchange, a component of HSE
HHS	Health and Human Services
HIE	Health Information Exchange
HIPAA	Health Insurance Portability and Accountability Act
HIT	Health Information Technology
HITSP	Health Information Technology Standards Panel
HIX	Health Insurance Exchange
HSE	Health Services Enterprise
HSE or HSEP	Health Services Enterprise Platform (in its entirety including HBE and IE)
IAM	Identity and Access Management

Acronym	Description
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ICA	Interface Control Agreement
IDM	Identity Management
IE	Integrated Eligibility
IT	Information Technology
ITOP	Information Technology Optimization Project
J2EE	Java 2 Platform, Enterprise Edition
MDM	Master Data Management
MFT	Managed File Transfer
MITA	Medicaid Information Technology Architecture
MS	Microsoft (company)
NFR	Non-Functional Requirements
NHIN	Nationwide Health Information Network
NIST	National Institute of Standards and Technology
OAM	Oracle Access Management
OBIEE	Oracle Business Intelligence Suite Enterprise Edition
ODI	Oracle Data Integration
ODSI	Oracle Data Service Integrator
OEAF	Oracle Enterprise Architecture Framework
OER	Oracle Enterprise Repository
OFM	Oracle Fusion Middleware
OIM	Oracle Identity Manager
OIM	Oracle Identity Management (Provisioning)
OLAP	Online Analytical Processing
OLTP	On Line Transaction Processing
ONC	Office of the National Coordinator for Health and Human Services
OPA	Oracle Policy Administrator, a component of HSE
OSB	Oracle Services Bus
OSR	Oracle Services Registry
OUD	Oracle Unified Directory
OVD	Oracle Virtual Directory



Acronym	Description
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OWB	Oracle Warehouse Builder
QOS	Quality of Service
RAC	Real Application Clusters
RAC	Oracle Real Application Cluster, a form of high availability for Oracle databases
RACI	Outlines who is <b>R</b> esponsible, <b>A</b> ccountable, <b>C</b> onsulted, or <b>I</b> nformed
RFP	Request for Proposal
RTD	Real Time Decisions
SCA	Service Component Architecture
SDD	System Design Document
SDLC	Systems Development Life Cycle
SDO	Service Data Object
SI	Systems Integrator
SME	Subject Matter Expert
SOA	Service Oriented Architecture
SOW	Statement of Work
SoV	State of Vermont
SR	Siebel Service Request
SSO	Single Sign-On
UCM	Universal Customer Master, Universal Content Management
UI	User Interface
VEAF	Vermont Enterprise Architecture Framework
VEAP	Vermont Enterprise Architecture Program; the practice of Enterprise Architects under the direction of the CTO
VHC	Vermont Health Connect
WC	Oracle WebCenter (Scan, Recognition, Content)
WIC	Women, Infant and Children Program