ActiveDocs

DOCUMENT AUTOMATION SOFTWARE

ANALYSIS OF TEMPLATE CHANGE MANAGEMENT AND COMPLIANCE AUDITING IN MEDIUM AND LARGE ENTERPRISES

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Abstract: Medium and large enterprises can reduce their risk exposure by implementing, and enforcing, appropriate Template Change Management and Compliance Auditing practices.

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1 Summary

Template change management and compliance auditing is an essential part of medium and large enterprise business processes. The compliance requirements originating in legislation and international standards include versioning of templates and other template design items, detailed recording of metadata allowing tracking of content origin and re-creating documents based on previous template versions. These requirements are seen as a critical audit practice. Template management systems must facilitate these requirements within existing processes and manage template lifecycle. This reduces risk exposure of a business and increases cost efficiency of operations. The ability of a template management system to manage document templates regardless of template usage and destination aids transition between existing document creation processes and document automation.

2   Introduction

The aim of this document is to analyse the requirements of template change management and compliance auditing in medium and large corporations with regard to quality management and information security management processes including requirements of international standards and national legislation. The document will analyse the current level of ActiveDocs functionality as a tool for template lifecycle management, template change management and compliance auditing, facilitating implementation of quality management processes. In addition, the document will examine the area of benefits of template management in non-automated document creation and transition from manual document production based on Microsoft Word templates or legacy automation systems to ActiveDocs document automation will be explored and several ways of utilising a template management system as an aid in this transition will be discussed.

3 Template Change Management and Compliance Auditing Requirements Analysis

Medium and large enterprises produce a large amount of documents. These documents are released internally or externally, carrying information vital to businesses and their customers. Businesses are increasingly more aware of the risks associated with releasing inaccurate or incomplete documents as well as issues related to information security management. Template management systems must facilitate template change management and compliance auditing in order to minimize the risk associated with every document transaction and clearly identify origins of every part of a template or a document created from a template.

The need for template change management and compliance auditing is based on requirements originating from business environment and business stakeholders alike. In this section of the document the main aspects influencing template change management and compliance auditing will be discussed.

3.1. Legal environment associated risks

With the enactment of Sarbanes–Oxley Act (SOX) type legislation world-wide and the growing need for implementation of Information Security Management following ISO/IEC 27000 family of standards or national standards an legislation (such as HIPPA, national Data Protection Acts etc.), the requirements for tracking document content origin and template change have risen dramatically. Businesses, and their boards, bear the consequences of releasing non-compliant both internal and external documents. The risks can be illustrated on the fact that 27% of Fortune 500 companies have been sued due to the inaccurate contents of a document (Gartner).

Systems supporting template change management and compliance auditing need to be able to track every change made to templates used for document creation together with logging the relevant metadata. This can protect organisations with high organisational liability from mismanagement by production of ad-hoc and poorly formatted binding documents. It should be possible to identify the source of inaccurate content in every released document.

3.2. Information Security Management

National legislation and international standards impose strict information security management on businesses handling and storing sensitive information. Sensitive data can only be accessed by strictly defined entities. Template management systems allow creation of templates and document content without a need for direct access to the sensitive data. In case some templates are required to contain sensitive data, template management systems should manage, monitor and report user access to the sensitive content. With an appropriate document automation system, a user without access to the sensitive data can create documents based on the data; the created documents can be consequently routed to the users with appropriate privileges for approval or further editing.

3.3. Cost efficiencies

Due to the complexity of compliance requirements businesses often choose to outsource this aspect of their operations. However, involvement of third party in this crucial component of their business poses a risk of creating a strong dependency on the compliancy management provider, carrying issues such as increased likelihood of system abuse and spiralling cost. Businesses should see a return on their investment into a template management system facilitating template change management and compliance auditing within one year.

4 Template Management versus Document Management Requirements

Document templates are often managed in a file system or document management system. However, the requirements of template management are fundamentally different.

Template management forms a foundation for document management. Changes in templates are reflected in multiple instances of finalized documents, thus, every change in templates needs to be tracked and templates subjected to a rigorous approval process. Template management system should facilitate template creation and change processes. The main difference between template and document management are summarized in *Table 1* below.

TABLE 1: DOCUMENT AND TEMPLATE MANAGEMENT COMPARISON

Document Management	Template Management
Omissions or errors in one document do not reflect in other created documents.	Omissions or errors in a template reflect in multiple documents promoting document inaccuracy – greater risk associated with an error in a template.
Document created in a few versions.	High number of template versions as templates develop with changing business needs.
Active lifecycle of a document (from first version to finalization, excluding archiving) is typically short (weeks-months).	Active lifecycle of a template (template creation, changes and usage) is perpetual and long-lasting (years).
Low number of steps in document creation and development.	High number of steps in template creation and development.
Documents are typically accessed directly by end users.	Templates are typically accessed by document automation systems or line-of-business systems creating documents automatically or interactively with well-defined user input.
Document content is static and visible: formatted text, tables, images etc.	Templates contain business logic in the form of macros, metadata, fields etc.; template content visible in the final document is dynamically driven by business logic.
Documents, typically, do not link with external data sources.	Templates need to maintain links to multiple external data sources.
Final documents are often standalone entities. If parts of other documents are included, the links to the origins of the content are lost.	Multiple templates and re-usable pieces of content are often merged into one final document. Links to the content origins are documented.

5　Template Lifecycle Analysis

Template lifecycle is fundamentally different from document lifecycle due to the nature of repeated change, approval and use process. In addition, templates have significantly longer active life than documents. The diagram below illustrates the stages of template lifecycle.
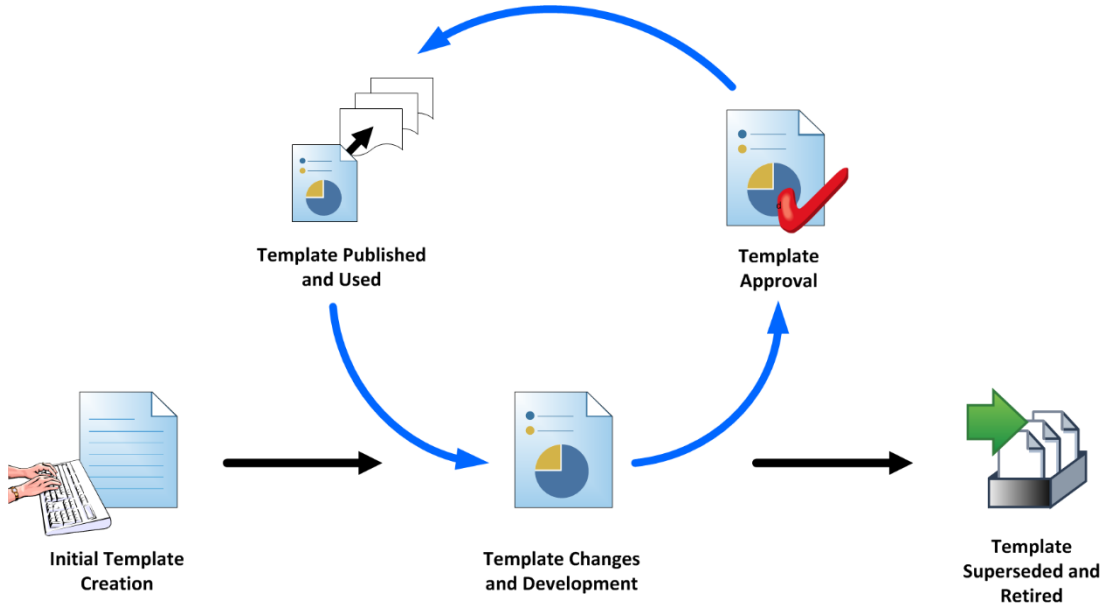
5.1.　Template Creation

A template may be created from scratch or based on a document or another template. It is essential to keep records of the origin of a template, the author, as well as additional metadata including time and date of creation, original source and template category. This information may later become vital for auditing and tracking the source of the content in the created documents. After the initial version of a template has been created it is, in most cases, subjected to further changes and an approval process before being published and used for document creation.

5.2.　Template Changes and Development

A created template is typically further edited in multiple stages and often several people participate in the template development. It is critical to keep track of the changes and record ownership of each change in the template. This applies to both template content as well as embedded business logic.

5.3.　Template Approval

Once the template creation and development process has been completed, each template must be approved before being published and used for business document creation. Template approval process would typically consist of multiple stages. Approvers need to to view and compare older versions of a template to be able to make an informed decision about template status. In case a template is rejected, the approver needs to be able to pass on a message outlining the reasons for rejection and/or make comments in the template itself.

5.4. Template Publishing

After a template has been approved it is set to be published. It can be made accessible immediately or on a certain date and time. A template management system should support publishing of templates with respect to the time zone a document creator is using the template in. Publishing of a template should automatically retire the previous version of the template. Usage of templates should be monitored. Document creators have access to the latest versions of templates only, avoiding releasing a document based on an outdated template.

5.5. Superseded Template Retirement

Once a template has been superseded and retired, all records and metadata should be kept for the purposes of document content tracking as well as re-creation of documents based on older versions of the template.

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6   Analysis of Compliance Auditing Requirements

Compliance auditing forms an essential part of a template management system. Each step in the template lifecycle must be documented, data used for document creation stored, metadata (such as change owner, date, time, template version etc.) logged and made accessible in a report form. This includes detailed reporting on template usage and document creation.
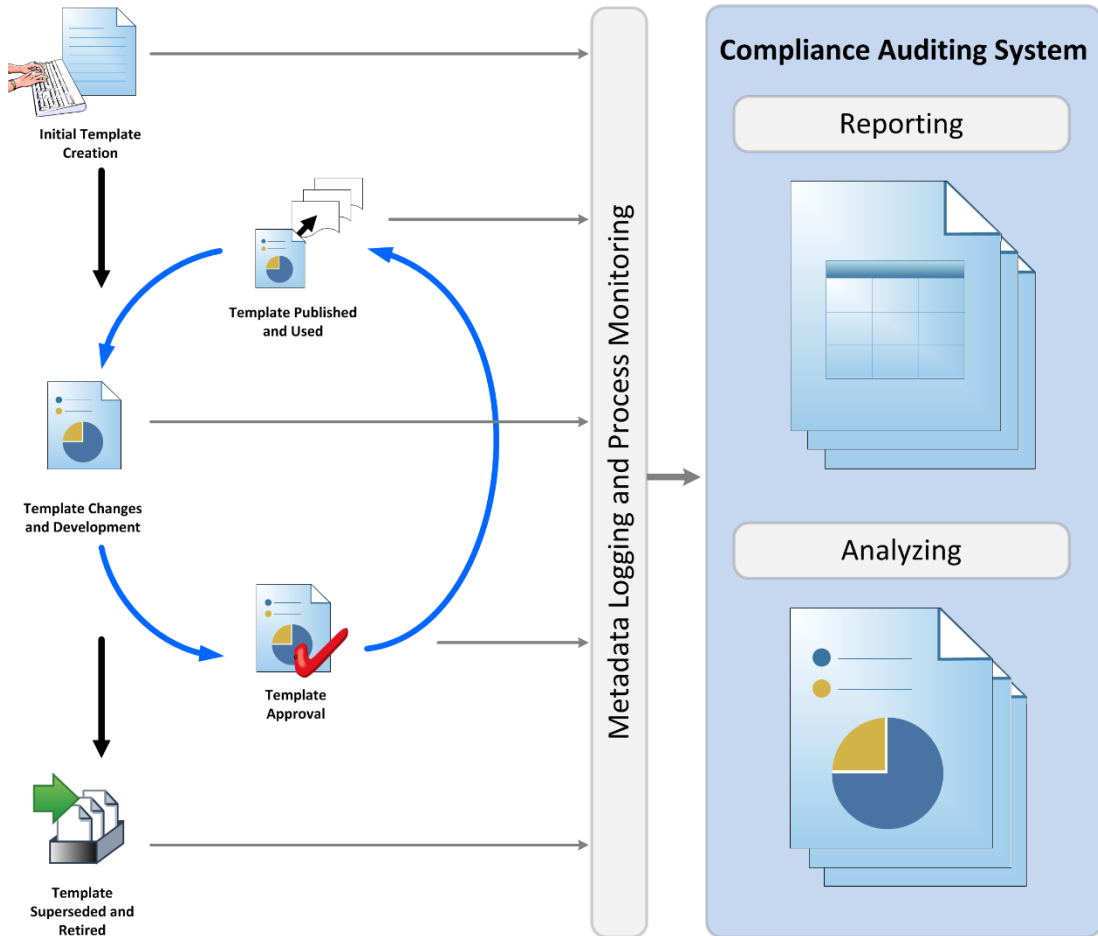
Compliance Auditing System within a template management system should have access to all the metadata created in template lifecycle. The list below defines the type of metadata collected by template management systems and divides them into two groups with regard to the importance to template change management and compliance auditing processes.

6.1.1. Initial template creation

Must have

- Template author
- Date and time created

Good to have

- Template owner
- Original document source (if based on a document)
- Assigned co-authors
- Link to predecessor template (if the template replacing another retired template)

6.1.2. Template Changes and Development (repeated process)

Must have

- Date and time change published
- Changes to template content between versions
- Changes to template business logic between versions
- Changes to common content and design items between versions
- Person requesting template publishing

Good to have

- Template owner
- Date and time opened, saved
- Draft version change tracking

6.1.3. Template Approval (repeated process)

Must have

- Template approver(s)
- Approval/rejection date and time

Good to have

- Approval/rejection comment

6.1.4. Template Published and Used (repeated process)

Must have

- Date and time published
- Date and time template used to create the document
- Template version used
- Answers/data used to create the document
- Document creator

Good to have

- Document creator location
- Document destination (file system, DMS, workflow, finalisation process, printer, email)

6.1.5. Template superseded and retired

Must have
- Date and time template retired
- Link to successor template
- All previously collected metadata kept
- All template versions kept

Compliance Auditing System must be able to report on and analyse the collected metadata by the criteria selected by the auditor.

7 Analysis of Template Change Management and Compliance Auditing in ActiveDocs

Template management tools in ActiveDocs facilitate template lifecycle processes, template change management and compliance auditing and provide one access point to multiple systems using the templates managed in ActiveDocs. *Table 2* provides a comparison of ActiveDocs Template Management System and other methods of template management.

TABLE 2: TEMPLATE MANAGEMENT METHOD COMPARISON

Functionality	ActiveDocs Template Management	Template Management in a File System	Template Management in a DMS
Versioning of published templates	Yes	No	Yes (DMS dependent)
Delayed (scheduled) publishing	Yes	No	No
Template approval process	Yes	No	Not perpetual
Common content part approval process	Yes	No	No
Business logic item or design item approval process	Yes	No	No
Template access through a web service	Yes	No	Yes
Access to templates through native environment	Yes	Yes	Yes
Access to templates through a web service	Yes	No (custom development required)	Yes (DMS dependent)
Access to templates through a documented API	Yes	Yes	Yes (DMS dependent)
Metadata collection	Yes	Limited	Yes (DMS dependent)
Support for perpetual template editing-approval-publishing process	Yes	No	No
Reporting on template content changes between versions	Yes	No	Yes (DMS dependent)
Versioning of business logic items and design items	Yes	No	No
Reporting on template business logic changes between versions	Yes	No	No
Reporting on business logic items and design items changes	Yes	No	No
Versioning of common content parts	Yes	No	No
Reporting on common content part content change	Yes	No	No
Reporting on common content part business logic change	Yes	No	No
Management of data sources	Yes	No	No
Re-creating a document using an older version of a template (template maintaining links to original data sources)	Yes	No	No

The analysis shows that current ActiveDocs functionality in template management supersedes the ones of document management systems and file systems. However, more detailed analysis of business requirements should be carried out as a part of the process of determining the feature set implemented in the future versions.

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8   Template Management System in ActiveDocs
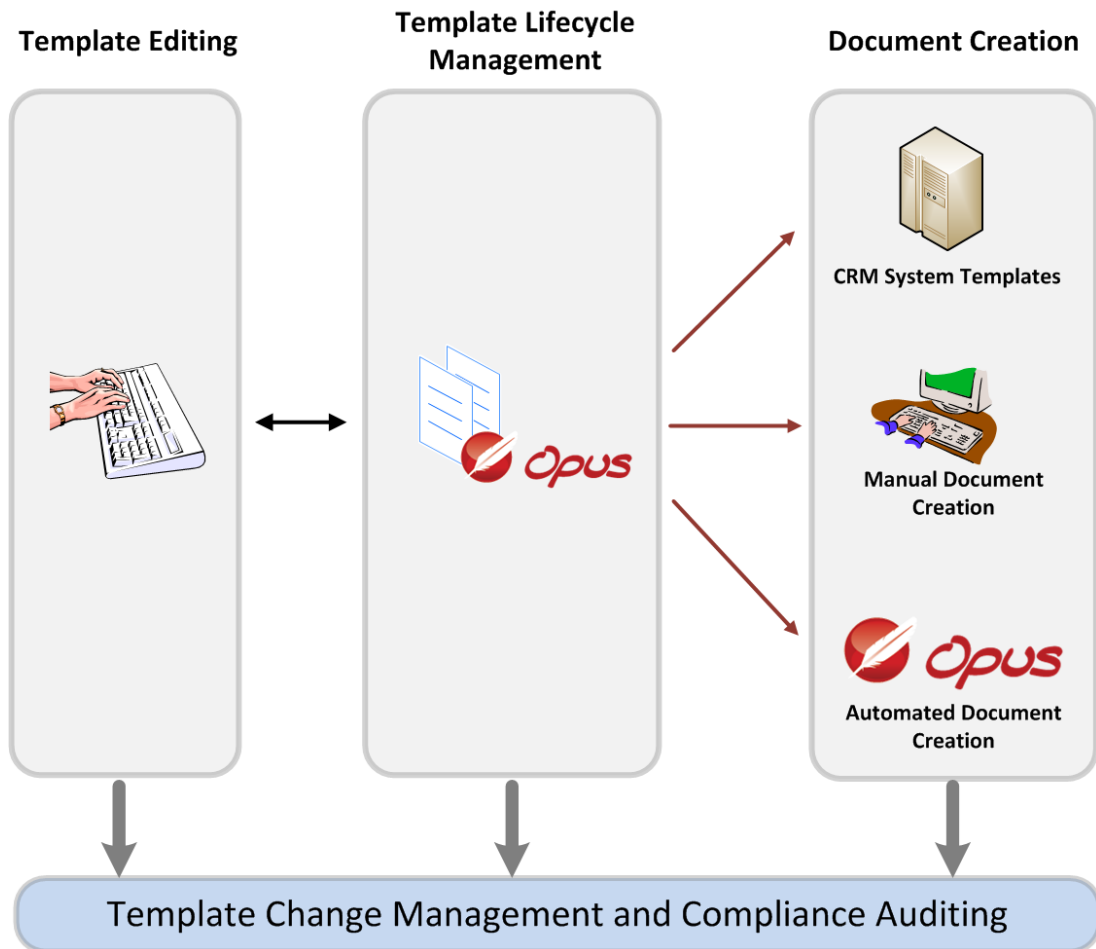
8.1. Template Editing Functionality Analysis

Microsoft® Word is a highly functional text editor and has not yet been superseded in the capabilities of template design and editing; Microsoft® Word template and document formats are de-facto industry standards. ActiveDocs utilises this text editor for template design and editing. This carries several advantages: (1) Template editing environment is user friendly and familiar, (2) Third party document automation macros and code can be managed, (3) Easy management of current manual document creation and mail-merge templates, (4) No need for additional software installation, (5) Native template creation environment for ActiveDocs. In addition, existing Microsoft® Word templates can be bulk imported into ActiveDocs and accessed from there.

8.2. Template Change Management and Compliance Auditing Functionality Analysis

Template Management environment in ActiveDocs facilitates all stages of the template lifecycle:

8.2.1. Template Creation

- Creating document in ActiveDocs Content Manager
- Importing templates from external sources
- Recoding template creation metadata
- Template categorisation

8.2.2. Template Changes and Development

- Versioning
- Content change tracking between versions
- Content ownership tracking between versions
- ActiveDocs design item change tracking between versions
- ActiveDocs template logic change tracking between versions
- Third party automation component change tracking (only the ones visible in the template)
- Prevention of editing collisions

8.2.3. Template Approval

- Template viewing
- Template version comparison
- Reporting on ActiveDocs design item and template logic changes
- Approver comments in the template
- Approver approve/reject message to the template owner
- Multiple approvers
- Template approver group management

8.2.4. Template publishing

- Immediate template publishing
- Deferred template publishing (date and time)
- Time zone specific publishing
- Template usage monitoring
- Only the latest up-to-date version of a template available to document creators

8.2.5. Superseded template retirement

- Automatic retirement of older template versions
- Records of all changes kept
- Metadata kept
- Re-using retired versions of templates for document re-creation

ActiveDocs currently provides a comprehensive feature set for template change management and compliance auditing in medium and large enterprises.

8.3. Document Creation Functionality Analysis

Document creation based on the templates managed in ActiveDocs can be triggered by multiple channels, such as ActiveDocs Express Wizard (native document creation environment of ActiveDocs), third party applications: Microsoft® SharePoint, CRM systems, etc. Alternatively, templates can be used for manual document creation. The documents can be created using ActiveDocs templates, third party document automation templates, and standard Microsoft® Word templates alike. ActiveDocs can manage templates regardless of the origin or internal functionality of the template.

8.3.1. ActiveDocs Templates

ActiveDocs Templates can be used directly from the native Express Wizard environment or seamlessly incorporated into existing business processes managed in Microsoft® SharePoint, CRM systems or other line-of-business applications. ActiveDocs is equipped with direct connection into many of these systems and provides integration tools as a part of ActiveDocs Solutions Studio. Document creation can be user-driven, fully automatic or combination of thereof.

8.3.2. Third party templates

Third party templates are requested and supplied to third party applications using Template Management Web Service. This functionality is fully documented and ActiveDocs Solutions Studio provides pre-made tools facilitating integration of ActiveDocs template management into third party applications.

8.3.3. Manual document creation based on Microsoft® Word templates

Templates for manual document creation can be requested directly through the Express Wizard environment, other application ActiveDocs integrates with or can be accessed by a line-of-business application using a Web Service.

9   Non-Automated Template Management Analysis

Utilising benefits of template change management and compliance auditing is not limited to the templates used for automated document production. Introducing template management in the environment where non-automated templates are used for document automation creates a controlled environment where templates are created, updated and approved to be used, as well allows tracking changes in the templates. In addition, usage of the templates can be monitored. The end users have only one access point they start a document creation from, assuring only the latest up-to-date template is used.

10 Transition to Document Automation

Manual document creation based on Microsoft® Word templates can be a crucial part of existing business processes. Even though business owners may be aware of document automation benefits, the difficulties associated with one-time conversion of all existing templates for a document automation system can create a barrier preventing introduction of document automation into businesses. ActiveDocs template management allows the existing templates (manual document creation Microsoft® Word templates or legacy system templates) to be managed from the same environment as the new document automation templates.

The unity of the template management environment can facilitate the transition into full-scale document automation. Templates can be automated one-at-a-time in the order of priority without any disruption to existing business processes, utilising the benefits of ActiveDocs template management system for all existing templates.

11 Conclusions and Recommendations

Medium and large enterprises cannot afford to neglect the need for template change management and compliance auditing posed by current legal and business environment requiring every released document to be accurate. At the same time businesses are being forced to increase cost efficiencies. Template management systems facilitate template change management and compliance auditing, reducing risks of creating inaccurate documents, providing a detailed track of every change made to a template, common content, related business logic items and design items, tracking origins of document content.

An appropriate template management system should work with existing business process management platforms, support document automation in current and legacy systems, as well as manual document creation based on existing Microsoft® Word templates.

The template management system that satisfies these requirements reduces risk exposure of medium and large enterprises and typically provides a full return on investment within one year. In addition, it can enable introduction of document automation into business environments where mass conversion of existing templates could cause disruption to normal business operation.