



Let's Solve

Modernizing Banking Experiences by Leveraging ECM

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Executive Summary

The Financial Services industry is at the cusp of a massive transformation, brought on by digitalization, new technologies, and emerging user expectations. To accurately understand customers and quickly resolve issues, ECM is now a critical enterprise component. It allows both clients as well as knowledge workers to gain from historical data, glean insights, and find new ways of implementation through structured and unstructured datasets.

While digitalization has already made deep inroads in the sector, it needs to be complemented by more powerful ECM modules and suitable technology foundations (Cloud, Mobility, AI, Machine Learning, and Analytics) to adequately manage the ever-increasing data streams. Banks must have the required competencies to structure any unstructured data, create foundational bases and make the data available to other technology integrations. It is only by creating data flows into core banking components, that the true potential of ECM can be realized and banks will be able to serve customers better.

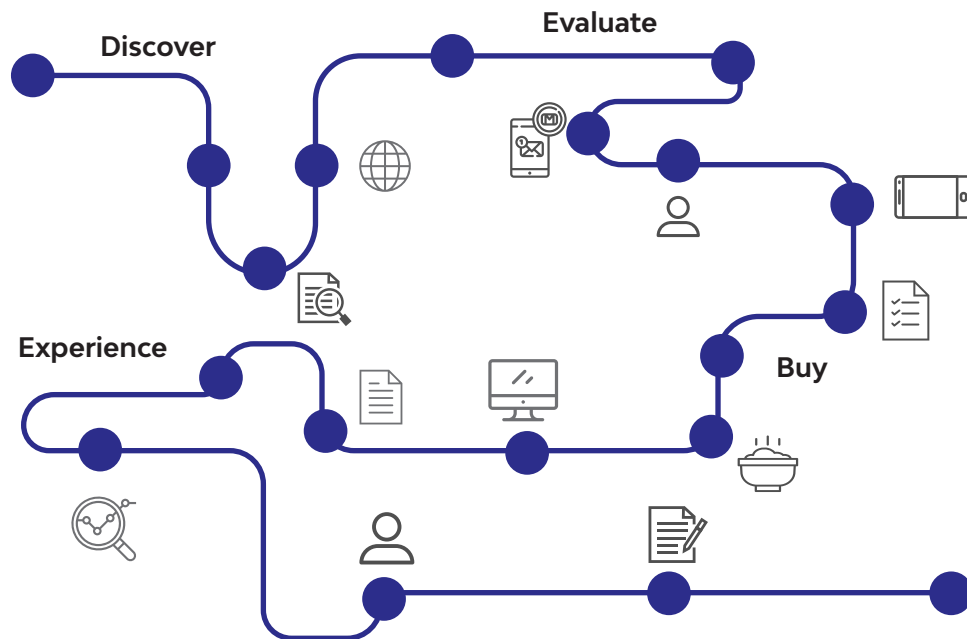
In fact, using data mining and data lake techniques as enabled by ECM vendors, banks can harness their knowledge repositories to fetch information targeted for specific use cases. In this regard, the role of ECM vendors will be central -- they will be essential partners as banks look at modernization, developing a strong

unstructured data foundation and adding an advanced technology layer, which is provided by OOB (out of the box). ECM vendors will have the unique opportunity of working together with banking customers, getting insights into the customer journey, help knowledge workers to utilize technology, and architect a rule-based advisory system which can predict customer needs and optimize sales and marketing strategies.

This whitepaper focuses on how ECM can help strengthen unstructured data management competencies, allowing banks to form new operational models and accelerate their digital journeys. To that end, the paper shares proven people, process, and technology solutions to address common complexities.

Problem Statement - How ECM fits into customer journeys

To understand how ECM can aid banking modernization, it is important to first consider its role in banking customer journeys – a typical journey is illustrated below (Fig 1).



Imagine a scenario where a customer approaches an online banking platform for new services, interested in a specific insurance policy. This is the Discover Stage, where the customer wants to find the best policy possible for themselves or for family, and initiates a conversation, with the insurance provider. The bank then provides a set of options via multi-channel streams, using chatbots and Interactive Quotes to gain further information. Next, the customer evaluates these options and makes a decision, getting a policy drafted to paperless onboarding and paperless claims processing. As soon as the customer accepts the policy and the requisite transactions are complete, a Welcome Kit is sent over either through an agent or a mobile app – the customer simply digitally enters their photo and e-signs to continue the process.

This is a complex pathway where the customer may want dynamic statements and real-time reports, requiring the bank's knowledge worker to perform remote authoring and mobile approval. Every step from Discover and Evaluate, to Buy and Experience involves forms and unstructured data, making technology which can handle these formats absolutely essential.

Banks require robust ECM which can process unstructured data on demand and with agility, storing the data in a singular repository which can allow continuous tracking and deeper insight generation, accessible by both customers and knowledge workers.

Challenges faced by banking providers when streamlining content management

In light of the customer journey described above, banking providers are looking to reinforce their ECM capabilities. However, a number of challenges stand in the way:

- Banks rely on legacy models or an open source API approach for document composition applications, resulting in a complex application landscape.
- Due to a high degree of manual dependencies more staff is required to maintain/develop the solution, also leading to high software license costs.
- Outmoded and disparate copywriting styles/-formats across applications cause inconsistencies in the knowledge base and a poor client experience.
- Templates are duplicated or can be stored in different silos, causing inefficiencies.
- There is no unified operational model for document composition, print and multi-channel delivery across markets.
- There is a chronic lack of appropriate configuration management and governance processes, especially for L2 & L3 of AM.

- Test automation and deployment using CI/CD (DevOPs) approach are required to accelerate delivery.
- Once the documents are stored in a repository, content case management solutions need to be implemented.

In addition to these implementation challenges, banks also require a robust compliance and document disposal mechanism after a specific number of years. Users need business dashboards, preferably with mobile compatibility, to make the solution truly useful. Most importantly, there has to be a strong digital foundation which can reconcile both structured and unstructured data, creating a truly integrated ECM framework.

While these challenges may seem insurmountable, by approaching them in clearly outlined buckets (as illustrated in Fig 2.), banking providers could easily resolve issues and achieve modernization success.

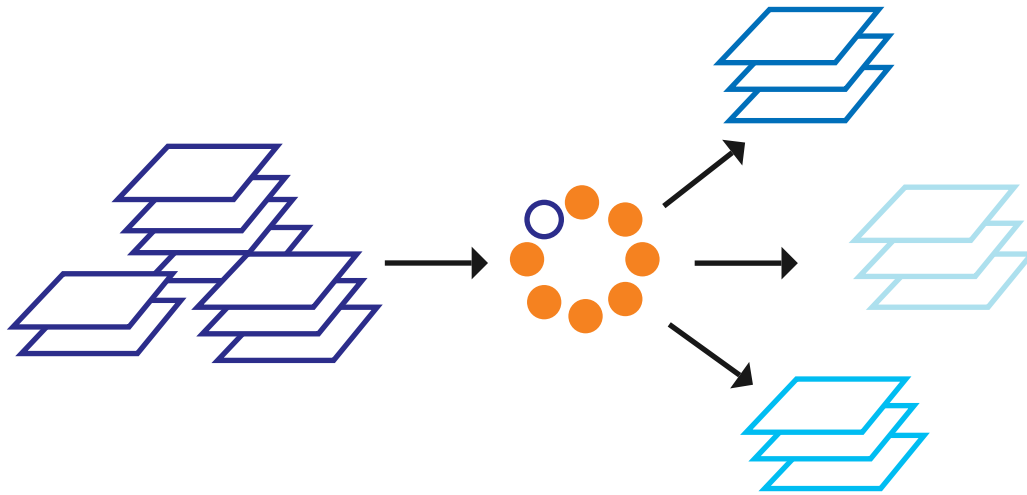


Fig.2

These pain points are recommended to be categorized as follows:

1. The absence of business knowledge -

Manual dependencies, legacy models, and outmoded copy-writing styles point to the absence of business knowledge and the need for external IT expertise as well as a closer tie-up between business and technical teams.

2. Incoherent technical roadmap -

The next set of issues can be resolved by identifying and prioritizing the right set of digitization modules, complemented by test automation, CI/CD, DevOPs, and improved configuration management.

3. Fortified process governance -

In the long term, banks need a future-ready archival, compliance, and process governance guidebook which will help manage ECM projects by multiple teams and stakeholders.

Therefore, it is advisable to take a three-pronged solution approach.

Building the Bedrock of ECM: The Solution

The three types of challenge areas can be linked to three critical aspects of operations: people, technology, and processes. The recommended solution is also distributed across these aspects, holistically engineering a bedrock for smarter content management.

1. The People Aspect

Digitization always begins with the state-of-mind and form-of-culture currently prevalent in the organization. Internal stakeholders of any bank should be ready to take on the challenges and change brought on by digitization, and the disruption that may be caused by a new way of doing content management. To ensure this, banks must follow these three best practices:

Building a culture of digitization

This begins by inculcating the right mindset and making sure that different teams (from IT to business) are innovation-ready. Collaboration pathways must be in place, and organizational leaders should motivate new recruits to contribute their ideas.

Proactively conducting training/upskilling sessions

The Learning & Development Team (L&D) must incorporate KPIs that matter to digitization projects. Team members should be able to share their stories, learning from each other's experience.

Putting a strategy in place

Here, banks must consider several basic questions such as understanding the role that content services play in their larger portfolio, identifying processes where decision-making hinges on unstructured data, and deciding whether emerging technologies, such as AI or machine learning can help.

All of this should be aligned to a customer-facing digitization plan: what is the experience to be delivered? Which are the channels preferred by customers? How does the team design the said experience? This will help determine the role of content as a whole and ECM solutions specifically when serving their customers. Without this step, ROI will be vague and the contribution of the new ECM to business outcomes would be intangible.

2. The Technology Aspect

After the on-ground teams and high-level business leaders owning the digitization project have been identified, banks can start mapping the various use cases involved when applying ECM to refine customer journeys. Based on specific needs arising from customers and the content itself, the specifications of the ECM solution are outlined. Here is a sample.

Scenarios and specifications

Arising from the customer

Easy, on-the-go accessibility for viewing or uploading content – Mobile Interfaces

Knowing the current stage of the content processing, getting insights or information on stored data

– Analytics & Data Mining

Overall Digitization – EI/CM specific modules

Arising from content

On-demand requests for quote or welcome letters - Customer Experience Enhancement

Auto-classification of content/letters in the system – Storage and Machine Learning

Additional documents capture, OCR/ICR requirement – Scanning Modules

Regulatory and compliance of documents – Records Management

Long-term content storage and immutable records creation – Archival System

These are just some of the critical areas which need to be covered when developing an ECM solution. However, for all of these to work correctly, resolving customer/content use cases as planned, banks need a robust unstructured data foundation. It is important to remember that while digital tools can easily handle structured formats, unstructured data continues to be a challenge. Therefore, it's vital to develop both concurrently, as well as provide a seamless integration between the two. This can be achieved through the following content management components.

A viable content management components/services umbrella

- **Capture Center:** Automatically capture and interpret paper documents, scanned images, email, and faxes using sophisticated document and character recognition software.

- **Web Content Management (WCM):** Create and deliver targeted online content to improve visitor experience and engagement

- **Customer Communication Management (CCM) or Output management:** Create customers for life with better customer engagement and personalized multichannel communications.

Process Suite/Case Management: Tools for transforming businesses; content-rich processes that can be quickly built/modified, delivering a variety of new digital experiences with a lower IT workload.

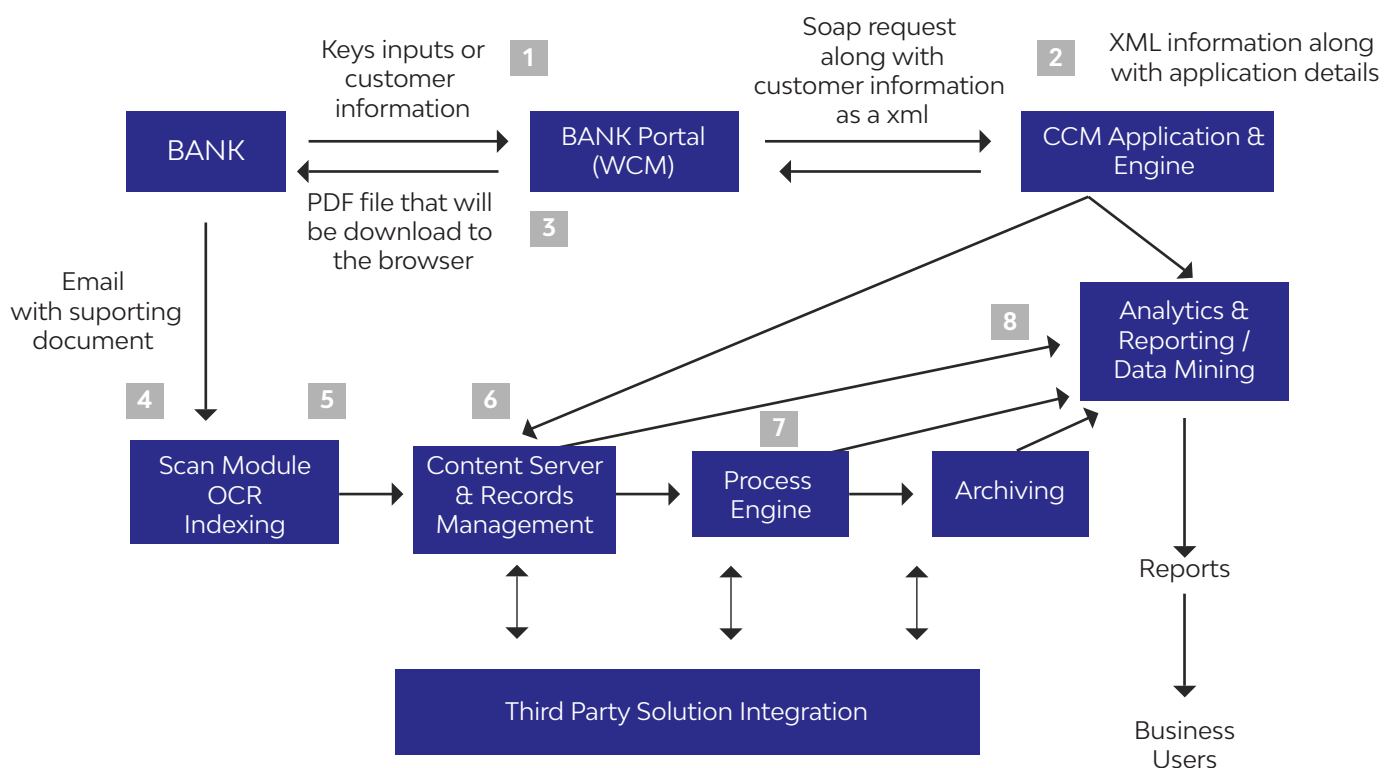
Content Suite & Archive Server: Reimagine ECM as a Content Suite, driving collaboration and including AI and machine learning for content classification.

- **Unstructured content compliance and records management:** Reduce risk and cost by managing the retention and disposition of content, enabling compliance with external laws and internal policies.

Analytics & Reporting Suite: Place interactive dashboards, reports, and data visualizations quickly into the hands of business users; integrate data across CRM, Internet of Things, or social media.

- **Mobile Apps:** Create, deploy and manage enterprise apps that connect to ECM/EIM services from different devices and OSs
- **AI & Machine Learning:** Conduct detailed scans of customer profiles, working on rich content or media content, garnering insights from image data.
- **Data Mining:** Use data lakes and custom algorithms to get relevant customer information, tailoring services and generating more revenues.

Building these components/services will be the bulk of this digitization process, which is based on ECM modernization. Team members must be able to visualize how events and information are flowing within the solution, interacting with different modules and triggering various responses. Here's what a graphical representation of this would look like (Fig 3.):



Once the use cases, corresponding specifications, and information flows have been defined, banks must trial the framework based on a common transaction and the stakeholders who would be involved in handling the same on a day-on-day basis. As an example, let us consider a scenario where an insurance provider when transacting with the customer, must store, share, archive, and analyze content. A typical ECM-related customer journey

Sr. No Description

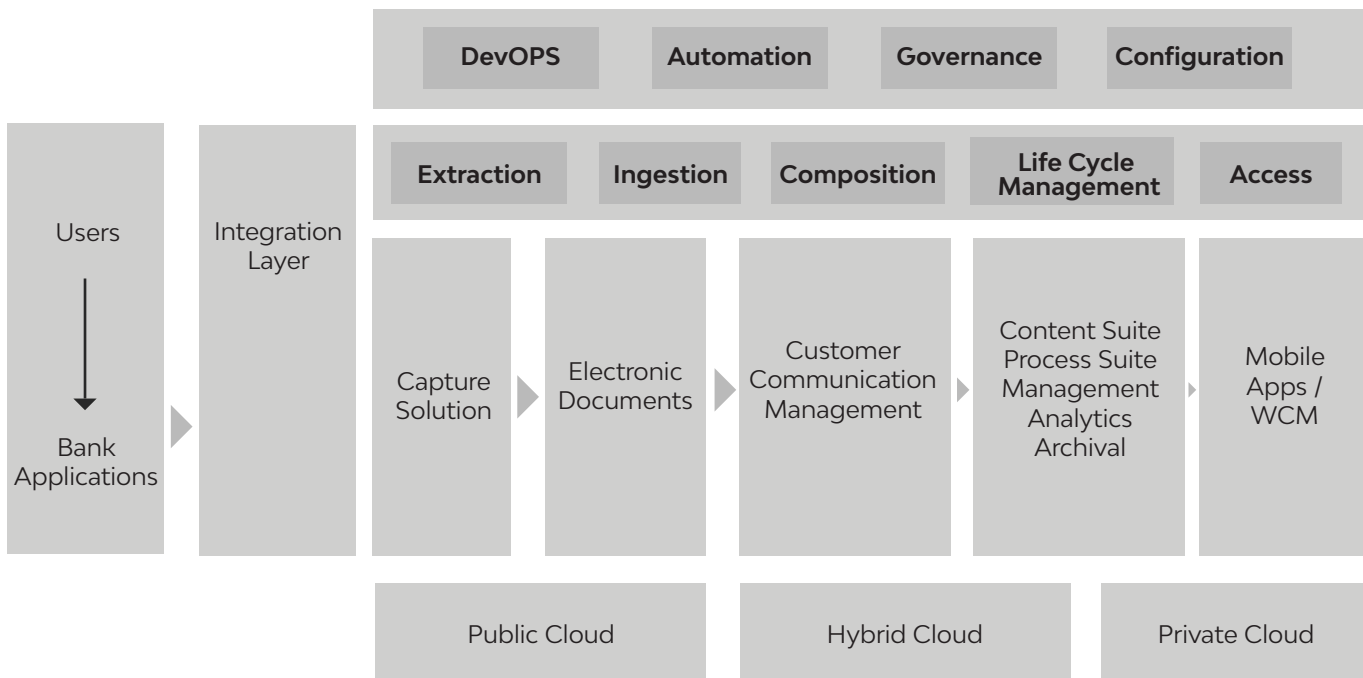
1. Customer requests for a quote via the bank portal or a custom application.
2. The request invokes the CCM engine to generate a quote letter using predefined templates.
3. The CCM engine provides a return in the form of a PDF file as Binary stream, delivered to the calling application or sent as an email to the customer.
4. Customer reviews the content, and if they decide to purchase, they provide additional documents via email or submit hard copies to a bank branch.
5. A scanning module performs the required activities of scan (if hard copies submitted), recognize and validate.
6. The data is stored into a content server as an electronic record, along with the required metadata.
7. A workflow or business process is initiated to perform validation for acceptance or rejection of the customer's application, archiving it as a record.
8. Concurrently, an analytics/reporting database captures data from various databases and forms the required data lakes for analytics purposes.
9. Using a mobile application framework, data is retrieved from the analytics layer and all other content repositories to provide a holistic view to business users.

Digitizing using ECM technology

With digitization being such a layered, complex and multi-faceted initiative, banks often do not have the requisite expertise in-house. Rather than buying in technical/domain expertise in order to solve a one-time challenge like ECM implementation, it is recommended to partner with a service provider who would bring dedicated staff and development tools to speed up the initiative. The service provider will work closely with the bank, focusing on three aspects of operation -- inbound, outbound, and core business processes. Within the last element, will be embedded a majority of the use cases required as part of the modernization of the banking experience.

When working in each of these touchpoints the service provider will add an additional layer of technology accelerators/sustenance: DevOps, Automation, Governance, and Configuration, as shown in Fig 4.

Based on consultations with the bank, the final solution will be deployed to a public, private, or hybrid cloud environment, as this offers significant cost and accessibility advantages over on-premise infrastructure.

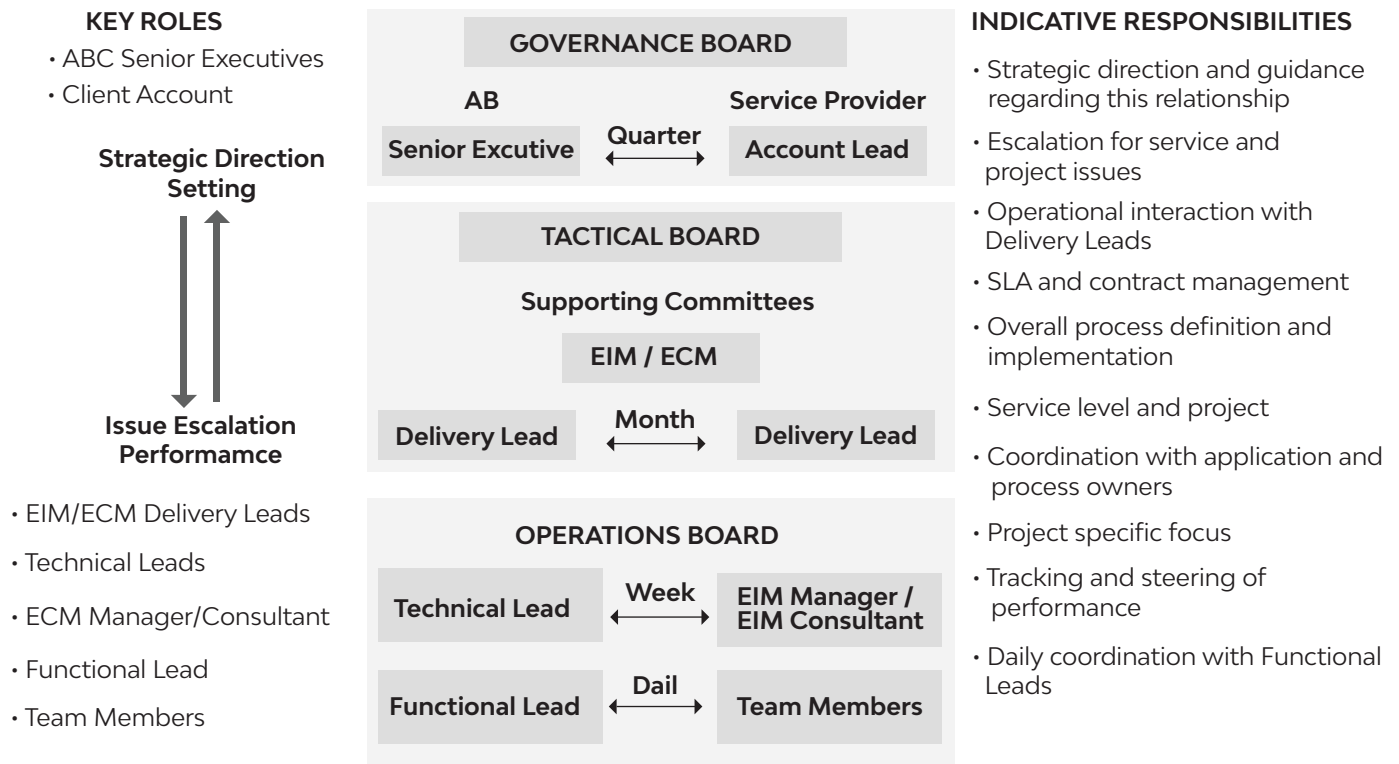


3. The Process Aspect

To sustain the transformation and fully utilize ECM for banking experience modernization and value generation, well-defined compliance and governance processes are required. Briefly, this will encompass a governance structure, and a service model for AM, AD, and AO stakeholders.

Information Management to strengthen key relationships

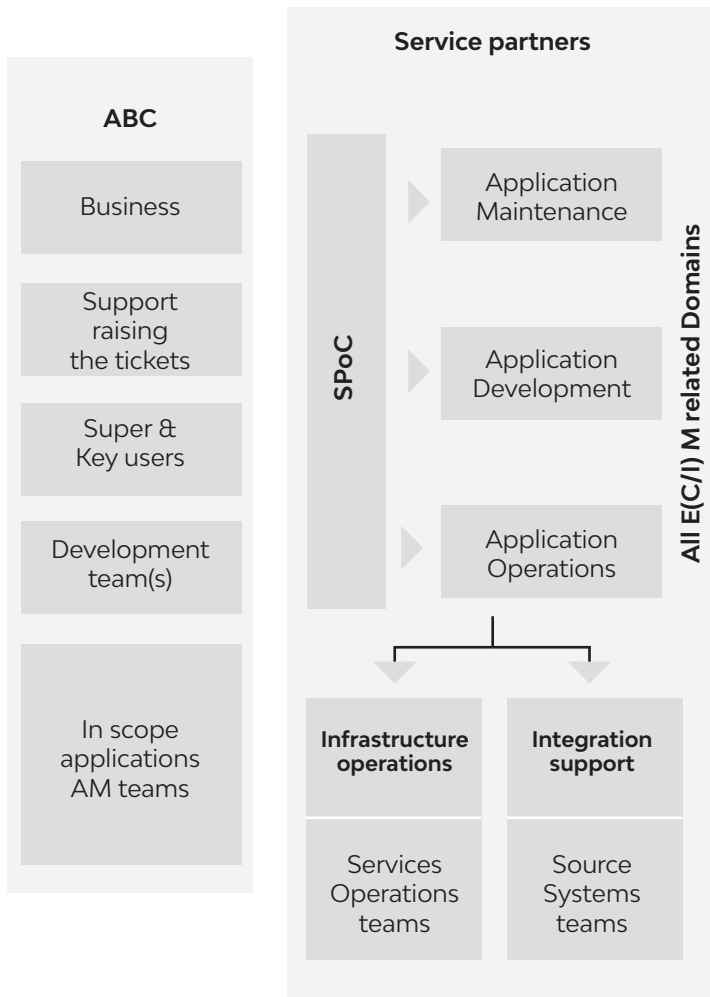
When orchestrating the different projects which are part of the modernization initiative, it is advisable to follow the structure illustrated below -- synchronizing tasks between three dedicated boards (Governance, Tactical & Operations). Their central responsibilities and roles are described below (Fig 5.):



SPOC (Single Point of Contact) layer to simplify the operational model

In addition to the information management framework outlined above for internal stakeholders, a SPOC layer must be defined for interacting with service providers and maximizing this partnership. This follows a Unified Service Model, which will help the service provider address any emerging issues when developing an ECM solution, working across the bank’s internal teams, handling reporting, maintaining SLA adherence, and other such activities.

Below is the Unified Service Model, which demonstrates how budget tracking, escalations, and delivery can be orchestrated via a SPOC during the modernization journey (Fig 6.):



Integrated AM and AD Model with defined interfaces

- The model consists of service provider teams as active Party co-operating with other service partners
- Service provider will act as AMC SPoC for all services to support all ECM processed
- ABC to raise requests, incidents & AD work to Service provider
- AM & AD delivery location will be agreed based on the data security (restricted data Access etc.) needs
- Governance and organization for ECM service will follow the principles.
- For the sake of clarity the AM & AD do not overlap, though de facto a unified team is used as far as possible within the limitations.
- TRNS/KT is defined separately to cover the new items to Service provider scope.

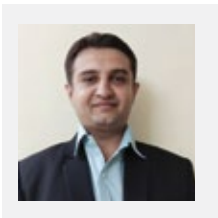
Conclusion – Exploring emerging technologies

Across the world, banking customers now want digital experiences, delivered across different channels and devices. Banks must gear up to stand out in this competitive landscape, harnessing ECM to streamline workflows and boost experience quality. However, given that 30% of all data is in an unstructured format, modernization success will depend on a bank’s ability to fortify their digital foundation, prepare their people, implement the right technologies and deploy future-proof processes.

All of this is made easier by partnering with an ECM services provider, who can interact with internal stakeholders to build the best possible solution. The modules listed in this white paper describe the essentials that every bank must get right, in order to benefit from a modern ECM environment.

Going forward, we can expect AI and machine learning to play a pivotal role in aiding knowledge workers, tagging data, generating insights, and automating customer interactions. These combined with a hybrid cloud model, balancing security with accessibility, will be key to helping banks reach their goals at optimized costs. This isn't the beginning of a new era; rather it is an area of maturity which leading banks must explore in order to make the most of their extended enterprise content database and its immense potential.

About the Authors



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Mitesh Kothari is a Senior Technical Architect, ECM-Content Services, with over 14 years of experience. His work has spanned across diverse areas including pre-sales, on-ground delivery, and migration, across different technology frameworks.

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