BEST PRACTICES FOR KNOWLEDGE WORKERS

THRIVING ON ADAPTABILITY

FOREWORD BY SURENDRA REDDY

Special Edition
Brought to you by OnBase by Hyland
featuring award-winning
WESTMED Practice Partners

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This special presentation of:

WESTMED Practice Partners, USA

Presented by Hyland, creator of OnBase®, USA

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Thriving On Adaptability
Best Practices for Knowledge Workers

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Workflow Management Coalition

21 Years of Thought-Process Leadership
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The volume and variety of corporate information is accelerating at warp speed. The need for organizations to manage and leverage information in real-time is critical. To lead in the marketplace, large corporations must service customers with the agility of a small business. No longer is information measured by the linear foot of file cabinet space, but by terabytes of data. Agility is required to turn managed information into an asset, and not a liability.

In the world of enterprise content management (ECM), the “scan, store, retrieve” solutions of the past now offer only a piece of the modern information management puzzle. Even traditional ECM workflow may no longer handle the multitude of content types and structured data needs required by today’s business.

Today’s businesses require a broader set of capabilities for ingesting structured and unstructured content, managing it, storing it and making it accessible. Making that critical business information available through cloud-based deployments, on mobile devices, and to third-parties through portals are just some of the requirements in today’s breakneck-paced world where service levels are measured in seconds, not days or weeks.

Since 1991, Hyland, creator of OnBase has simplified the way people work and helped organizations get the most out of their information. OnBase offers a “Business Agility Platform” that extends beyond the bounds of traditional ECM.

Case management is key

While still the foundation of the platform, ECM is joined by our world-class OnBase Case Management offering. Case Management enables organizations to manage structured and unstructured data in a
single, configurable system, to perform task-driven processes, and often, to replace siloed niche applications while consolidating IT infrastructure.

The complexity of gaining access to the world’s information with ever increasing speed demands a Business Agility Platform. Whether starting in a single department or leveraging across the enterprise, OnBase stands alone with its suite of applications to meet the information and business process management needs of organizations, today and 10 years from now. On the go and in the cloud, OnBase enables organizations to nimbly respond to today’s customer’s needs while managing the information explosion across the enterprise.

For more information, please visit OnBase.com.

Excerpt taken from KMWorld March 2015 issue.
Surendra Reddy

ACM 2.0: Decoding the Business Genome

The power of Data-Driven Adaptive Process Management, Contextual Intelligence, Case-Based Reasoning, and Machine Learning

“As far as the laws of mathematics refer to reality, they are not certain, and as far as they are certain, they do not refer to reality.” Albert Einstein.

The future is about rapidly dealing with change. Competitive intensity is rising all over the world. Customers are the single biggest factor in any company’s long-term growth and profitability. Global competition and digital transformation have given customers more choices and access to information than ever before. This means that customers are able to choose from an overwhelming selection.

Customers are demanding services in real-time. Business processes need to be executed in real-time in response to customer demands. Managers and employees need to work collaboratively, share knowledge, and prepare to make instant decisions. The demand pull of the fast competitive global business landscape, the tectonic shifts caused by digital transformation, and instant connectivity to everything are disrupting the rigid process-oriented operating system. At the same time, customers, competitors and even cooperating partners continually change the way business is done and thus are altering the overall business landscape itself. These changes and shifts in customer behavior have turned every industry into a service industry. Service businesses know they must incorporate customer-focused adaptive processes into their business operations; which can create increased complexity, variability, and constant change to deal with new realities.

Business Process can be simply defined as a way of doing business. It is the central nervous system of the 21st century enterprise. The rise of a new generation of knowledge workers, the emergence of networks of experts, and the fast diffusion of knowledge are also changing the way business processes are conducted.

Modeling business processes is not an easy task as it is very difficult to capture all the relevant conditions and facts beforehand. Real-time situations are frequently unpredictable and ambiguous, and cannot be described precisely. Furthermore, complete characterization of a real system requires high fidelity data and real-time contextual insights to realize fully automated, adaptive, and reflexive business processes. Most of the conventional tools for formal modeling, reasoning, and computing are hard, deterministic, and precise. Companies have invested heavily in business process management systems and static dashboards to optimize their operations for a perfect one-way stream; the line of production. Over time, business processes have been standardized, outsourced, off-shored, in-sourced, shared, re-outsourced, and even sometimes ignored, primarily to reduce costs.

Enterprises immensely benefited from optimized processes within command-and-control structures. Today, however, the challenge is to coordinate and orchestrate sharing of knowledge and expertise both inside and outside of the organization.
Enterprises need to continuously innovate and reinvent new processes and business models by harnessing enterprise and business ecosystem-wide knowledge and expertise.

Command-and-control structures are becoming obsolete, if they are not already. Enterprises are transforming into self-organizing, self-learning, distributed and collaborative expert or knowledge worker-centric networks to engage and draw knowledge and resources from inside and outside the enterprise. Enterprises are decoding their business genome to create their unique differentiation. Business genomes provide valuable insights into the critical success factors of total customer experience, velocity, and operational efficiencies, for example, enabling enterprises to learn and adapt their operating processes or systems delivering instant customer value; every time and all the time.

Welcome to the age of intelligent machines and connected everything. It is the world of consumerism. Processes now travel at the speed of light. Adaptive processes do, in fact, provide huge competitive advantages. It is not enough to design processes that are efficient. These processes, at the core of the digital transformation, also need to help us rapidly predict and act. Enterprises should be able to uniquely construct and map their business process genome so that enterprise is able to create unique identities, and hence deliver continual competitive differentiation for their customers. Today’s market dynamics offer virtually every business a channel to constantly redefine or reimagine their processes. Every step of the customer experience—from marketing and sales, to order fulfillment and customer support—offers opportunities to optimize business processes and identify new markers and sequences to enable creation of new products and services.

Unpredictability and variety are the new reality. Unpredictability can be found in every area of our daily lives. The driving forces for fuzziness or unpredictability are rapidly changing new knowledge or insights, human judgment, analysis, elasticity, and the half-life of decisions and intellectual property. Hardly any business processes in today’s business context are fixed or predictable. Moreover, human knowledge or subject matter expertise is key to optimal performance of these business processes. Augmenting business process with the human insights or knowledge to refine and optimize these so-called non-predictable case scenarios is extremely critical for the next generation enterprise to be able to continually create and re-create their optimal competitive advantage. Change is not only constant but it is disrupting the way of doing business and impacting every part of the organization. Enterprises need to collaboratively map and remap their business genome to understand their unique differentiation and build an adaptive data-driven operating environment.

While business process modeling (like BPMN) tools helped organizations improve workflow, newer technologies—social media, mobile, analytics, and cloud, etc.—are driving a new era of business process innovation. Technology drives many effects: it reduces the friction of distance, it increases the variety of options and possibilities, it increases the velocity of just about everything. It also increases complexity and interdependency. New technological innovations in machine learning, real-time analytics, contextual intelligence, mobility, and cloud are now enabling Adaptive Case Management (ACM) as a strategic tool for transforming organizations into customer focused organizations. These tools and technologies enable real-time, collaborative decision-making by creating networks of subject matter experts (knowledge workers) and providing them the needed insights, information, next best actions, and recommendations, creating an optimal operating environment.
The sequence of human or customer actions is not knowable in advance, and this course may vary greatly from case-to-case. The course—I call it customer journey—will depend greatly on the details of the situation itself, and the details of how the business is conducted (i.e. business process) may change before the customer interaction is complete.

Prediction of the course of events is no longer based on a statically defined set of rules. It must be based on new and relevant information that the organization has about the customers, products, and competition at the time. Most of the real-world business processes are always tentative, contingent upon the next piece of knowledge/insight discovered. This style of business process patterns is becoming the new normal in modern enterprise. Sensing, Reasoning and Predicting the next best action (NBA), or next best recommendations (NBR) to the business process step, is becoming a critical requirement. I clearly see and envision how ACM fits into transforming organizations from static silos to dynamic, continuously learning, adapting organizations, enabled through ACM into next generation, customer-focused, adaptive organizations.

Collaboratively discovering and dynamically adapting to the real-world and even real-time situation is the key for 21st century organizations to deal with unpredictability. There will be rapid advancements in technology, as well as, the human interaction and or response to these technological changes. Soon, human and machine conversations will be an integral part of our daily lives. Though it may take little longer to realize singularity, there will be an intersection of time where human intelligence symbiotically augments machine intelligence to move us closer to singularity.

Organizations should become more creative and innovative. We don’t need to reinvent more acronyms. A combination of BPM and ACM gives us the needed framework to deliver social casebooks to drive customer focused and socially responsible organizations. Enterprises can view ACM as a strategy to simultaneously increase customer experience and drive business innovation. It is not either BPM or ACM, it is the combination of these two that enables integration and automation of processes and analytics to improve information and collaboration and to incorporate best practices through a network of subject matter experts and organizational knowledge.

Imagine a fully integrated ACM system layered into the value stream of an enterprise. The customer support team is able to focus on customer needs, with easy access to the entire company’s repertoire of knowledge, similar cases, information, and expertise, as if it were a service. To truly accommodate customers, companies must vest real power and authority in the people and systems that interact directly with customers, at the edge of the organization and beyond. ACM augments business processes to deliver true data-driven process infrastructure entering enterprises into the age of intelligent machines and intelligent processes. ACM empowers the knowledge worker to collaborate, derive new insights, and fine tune the way of doing business by placing customers right in the center where they belong, to drive innovation and organizational efficiencies across the global enterprise.

ACM also helps organizations focus on improving or optimizing the line of interaction where our people and systems come into direct contact with customers. It’s a whole different thing; a new way of doing business that enables organizations to literally become one living-breathing entity via collaboration and adaptive data-
driven biological-like operating systems. ACM is not just another acronym or business fad. ACM is the process, strategy, framework, and set of tools that enables this evolution and maturity.

ACM, in my opinion, is the future blueprint for the way of doing business. Business leaders should incorporate ACM thinking as a way to radicalize, disrupt and sharpen their business processes to better anticipate an increasingly unpredictable future and to better prepare for resulting emerging opportunities.

Surendra Reddy is the founder and CEO of Quantiply Corporation, an emerging technology venture being incubated at PARC to deliver a platform for real-time high-performance analytics. Prior to Quantiply, he was the CTO of Cloud & Big Data Futures at Palo Alto Research Center (PARC), a Xerox Company.
Section 1: ACM Case Study
1. EXECUTIVE SUMMARY / ABSTRACT

Providing high-quality services through cutting-edge technology is the longtime mission of WESTMED Practice Partners (WPP). However, with thousands of policies and procedures supporting its multispecialty practice facility clients, WPP was challenged to effectively manage all processes.

Searching for a solution to these challenges, Dr. Simeon Schwartz, WPP’s Chairman and CEO, found inspiration in a checklist approach to healthcare – as well-documented in Atul Gawande’s book *The Checklist Manifesto*. This led WPP to look for a software solution that would help WPP build checklist-style applications to improve process quality, consistency and outcomes, both for the organization itself and its hospital system clients.

WPP partnered with its enterprise content management (ECM) vendor to implement these applications using its comprehensive case management platform. WPP used the flexible platform to design and deploy a wide variety of applications supporting processes enterprise-wide. These range from more standard case-based applications to unique checklist-driven applications for process control in areas like IT help desk, labs and medical testing, front desk, patient billing, new site openings, human resources and physician compensation.

More than 2,000 policies and procedures were incrementally incorporated into WPP’s process control application, leveraging a flexible checklist framework that allows staff to track process completion, flag steps for review and communicate issues or opportunities to managers. The application also provides supervisors with increased visibility into process status via dashboard views and accessible feedback loops.

In addition to organization-wide checklist process control, WPP used the same case management platform to build a variety of other case-driven applications, including provider credentialing, incident tracking and HIPAA violation tracking. By building several applications on one core platform, WPP has a single place to control security and manage all data and documents that support its key processes.

2. OVERVIEW

Before implementing a case management platform, WPP faced challenges of managing thousands of processes throughout the organization and for its health system clients. Different departments and individuals were handling and tracking processes in different ways, including shared spreadsheets, individual checklists and e-mail communications – limiting both consistency, visibility and creating too much opportunity for error.

To improve process quality, consistency and outcomes, WPP’s Chairman and CEO Dr. Simeon Schwartz turned to a checklist approach, an idea well documented in Atul Gawande’s book *The Checklist Manifesto*. WPP searched for a software solution that would help it build checklist-style applications to support and improve processes for WPP and its hospital system clients.

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By partnering with its existing ECM vendor, WPP leveraged its comprehensive case management platform to design and deploy a variety of applications. The platform supports processes across the organization, ranging from more standard case-based applications to unique checklist-driven applications for process control in areas like IT help desk, labs and medical testing, front desk, patient billing, new site openings, human resources and physician compensation.

WPP’s process control application was a major element of the implementation, incorporating more than 2,000 of WPP’s policies and procedures spanning a variety of departments and types of work. Leveraging a flexible checklist framework, the application allows staff to track process completion, flag process steps for review and communicate issues or opportunities to managers. The process control application also provides process owners and managers with increased visibility into process status via detailed dashboard views and easily accessible feedback loops. Additionally, by prominently displaying process dashboards on large TV monitors across the organization, WPP allows employees to see the status of daily processes and understand how they are contributing to the bottom line. This increases transparency, accountability and employee engagement.

In 2013, WPP’s process control system generated more than 40,000 checklists, which were completed by more than 700 employees. Of those generated, a number of checklists required some level of management review, either because an issue was flagged or the process itself requires sign-off. The application allows for reviews to occur quickly and efficiently, notifying those responsible of required reviews and surfacing any feedback from employees. Since implementation, use of the system has grown rapidly. WPP generated close to 40,000 checklists in the first quarter of 2014 alone.

In addition to organization-wide checklist process control, WPP leveraged the same case management platform to build a variety of other case management applications. These include provider credentialing and incident and HIPAA violation tracking. WPP is in the process of finalizing a contract management application. The provider credentialing application is proving especially valuable. WPP plans to greatly increase its number of providers in the next few years, and the application supports the different information and activities required for the different types of providers, streamlining the credentialing process.

By building several applications on one core platform, WPP has a single place to control security and manage all data and documents that support its key processes. Overall, the enterprise case management platform helps WPP further its commitment to technology and innovation, and to achieve its goal of delivering high-quality services in a consistent and transparent manner. The number of processes that have been streamlined and automated – and the degree to which employees have been equipped to consistently handle knowledge-driven tasks – have allowed WPP to become leaner and more efficient. Additionally, WPP better serves its health-system clients by using the platform to manage processes on their behalf, including physician credentialing and billing.

Throughout the ultimately successful implementation process, WPP overcame various challenges, including training, adaptation and incomplete checklists. The organization revised its training curriculum and created classes focused solely on how to develop proper checklists that effectively support functional policies. Additionally, WPP requires managers to approve checklists for their departments, making them accountable not only for creating checklists, but also for the checklist content. With a dedication to transparency and accountability, WPP was able to
focus all stakeholders on providing quality content for their checklists and motivate them to regularly create and complete those checklists. For example, the TV dashboards provide real-time statistics on who has and has not completed their checklists. Additionally, every Monday morning, WPP’s executive team receives analytics data on processes scheduled for completion that were not completed. As a result of these practices, 97% of WPP’s checklists are completed on time.

3. BUSINESS CONTEXT
Before implementation, WPP had many different departments and individuals tracking what needed to be done, but each one did it his/her own way. This included thousands of Excel spreadsheets, notes in e-mails from managers to employees, SharePoint checklists and scattered file shares. These methods resulted in inconsistencies and little visibility for managers into what was truly being done, such as issues that arose but were buried in spreadsheets or lived in workers’ minds. WPP also lacked an alert functionality that would notify individuals of work to be done, new actions to take or concerns that surfaced.

WPP realized it had a tremendous opportunity to get the whole company rallied around a consistent format for doing process-related activities. That’s when the organization decided to implement a solution that would help unify and standardize processes while improving visibility, quality and, ultimately, patient service.

4. THE KEY INNOVATIONS
Overall, the case management project has had a tremendous impact in several areas. By leveraging the platform to rapidly deploy applications, WPP continues to work toward its goal of unified, consistent and efficient processes organization-wide. With applications built on the same platform, WPP evaluates processes and activities, standardizes certain steps, and reviews outcomes for continuous improvement. With each application, WPP takes an innovative approach to process improvement by capturing information first, then identifying relationships, related tasks and steps that can be automated to increase efficiency.

Since implementing the case management platform, WPP has developed a comprehensive, organization-wide vision of how to improve quality. Virtually every manager is engaged in making sure that processes are completed correctly. Consistent with its mission to enhance the health of its community, WPP will continue to add more and more clinical workflows to directly impact quality and patient care in addition to the administrative improvements already made. With enterprise-wide dashboard views, both management and the rest of the workforce enjoy increased visibility, improved decision-making, increased accountability and enhanced employee engagement.

WPP also benefits from continuous improvement initiatives by putting processes and checklists through a “clean up” process to reevaluate how work is getting done. Feedback from employees – submitted within the process control system itself – is essential for the continuous redesign of processes and checklists.

4.1 Business
WPP provides a turnkey solution for its hospital system clients looking to build freestanding, comprehensive ambulatory centers offering a full range of primary, specialty and ancillary services. WPP manages certain services on behalf of its clients, including credentialing and billing. By helping manage these processes, the case management platform and specialized applications ensure that all processes are structured, consistent and transparent for client organizations.
The case management platform also easily scales to meet changing business needs and priorities. For example, WPP experienced 35% growth in 2013 and anticipates a similar significant growth over the next few years. WPP’s case management platform – specifically the provider credentialing application – will help the organization handle this rapid growth and ensure that all steps are taken to properly credential all new providers.

4.2 Case Handling

Pre- and Post-Implementation

Before the solution implementation, employees typically completed processes using checklists on spreadsheets, which resulted in thousands of spreadsheet files. This made it extremely difficult to find required information and provided little to no visibility into who completed the tasks or when they were completed. It also made it very challenging for supervisors to determine whether steps were done correctly or to identify any issues that emerged. Additionally, whenever a process was updated, it was difficult to ensure that individuals were following the most up-to-date process. In some cases, employees were using outdated spreadsheets with processes that were no longer deemed appropriate.

Post-implementation, WPP can effectively manage over a thousand different processes by having process checklists generated and delivered to the right person at the right time. A percentage of these checklists are flagged as exceptions – either because the process requires additional scrutiny or the person completing the checklist encountered a problem that required management review. Those with oversight responsibilities no longer have to rely on someone telling them about an issue because the system automatically alerts them through e-mail notifications and management dashboards. Every checklist that requires management review is reviewed because none are lost, forgotten or buried in scattered files in some network location. The staff working on the checklists are empowered with the knowledge that their concerns and suggestions for improvement go directly to those individuals responsible for process oversight.

System Architecture

WPP’s enterprise case management platform has allowed it to conceptualize, configure and deploy a number of specialized applications, including process control applications and a physician credentialing application. WPP is also actively working on a case-based contracts solution that will be put into production within the next few months. All of these applications are built upon the same comprehensive platform.

WPP’s case templates (and checklists) were defined through performing extensive discovery with process owners and other stakeholders; understanding their policies, procedures and business requirements; and configuring templates that met those specific needs.

WPP’s extensive process control application is also fully integrated into the ECM platform. All checklist-related data (when they were generated, who worked on them, status, noted exceptions, etc.) is stored within a central database that is part of the ECM database. The software used to create the application automatically connects any part of the ECM system to the checklists, if needed. For example, if a checklist is generated to handle the clean-up of a chemical spill, one of the steps an employee needs to do is read through the appropriate Material Safety Data Sheet. This document can be attached to the checklist manually or automatically, providing the responsible employee with the correct steps and supporting information to complete the tasks safely.
The database is connected to one or more application servers, which allows the entire organization to take advantage of the process control application and all other applications built on this platform – even in geographically separate locations. This is key for WPP, which operates multiple sites within a metropolitan area. The application servers connect to WPP's e-mail services, allowing notifications and calendar reminders to be automatically sent to stakeholders involved in the process.

The templates used to define the checklists are configured so that process owners (not the IT department) have control over changes to the process. Templates can be configured to have checklists generated automatically according to a schedule or generated on demand. Process owners add the “who, what, where, when and why” to each template to fully describe the process. The process control engine takes that information and ensures that the right person gets the right checklist at the right time.

**Key Roles**

Key roles in WPP's enterprise case management solution vary based on the process/application being managed. For example, in the provider credentialing application, key roles are the credentialing staff, supervisor and managerial users (i.e. CMO). In the contract management application, key roles include contract requestor, approvers, legal staff, executives and management.

With the process control application, there are essentially three main roles: process owners (who design the process), process workers (who complete the checklists) and managers/supervisors (who review/approve processes and have oversight responsibility). Each template has drop-down list fields that allow the checklist owner to select individuals from these various roles. The template is saved with the individual's information, and every checklist that is generated from the template inherits that individual assigned. Whenever there is a personnel change, the system provides an easy way for WPP to reassign all incomplete checklists to another individual. The system also provides the ability to easily change any of the other roles on the template.

**Business Entities, Maintenance and Lifecycles**

The common thread among WPP's case management applications is that they're all maintained through a common configuration. This allows case-related information, data attributes and documents to all be automatically connected and easily accessible to employees.

The business users who use the process control application include the IT department, facilities management, human resources, laboratories, testing and billing. Checklist templates are stored in the central database, but the system automatically checks each template to determine whether it needs to go for an annual review to ensure the process is still appropriate. Checklists that have exceptions or issues also automatically go through a review process. The application notifies key stakeholders that a problem exists and that a review is required. When those individuals log into the system, it presents the appropriate checklists and templates to the user, who can spend the time reviewing the information and taking appropriate actions. Each template contains information about where the checklists are used, and the system automatically sorts checklists so that the right people see the right ones.

In the template lifecycle, templates start with a status of “under development” until they are fully promulgated by review groups and approved for use. Once activated, a template will generate checklists and deliver them to the right person. Over time, as a process needs to change, the template allows WPP to make enhancements. All
changes are maintained in the history of the template, so an audit can be performed, showing who made the change and when. When a template is no longer needed, the checklist owner can mark the template as retired, which takes it out of circulation yet still preserves it for historical purposes.

Other specific application entity examples include:

**Physician Credentialing:**
- Providers
- Delineations
- Entities
- Educational History
- Tasks, Notes, and Diaries

**Contracts Management:**
- Contract
- External Clients (Vendor, Provider, etc.)
- Approvers
- Notes

**Case Template Adaptation**

Based on the specific application, how the case can be adapted is subject to change. In the process control application, each template used to generate checklists contains the “who, what, where, when and why” for the process it supports. When any checklist is generated from the template, it is automatically delivered to the right person at the right time for completion. That person can add information to the checklist, which process owners will use to improve the process. This could include identifying better ways to complete the process, identifying problems or exceptions, or even adding a step that doesn’t yet exist but was required based on user judgment. This allows WPP to respond to changes as they occur. The template automatically collects information and presents it to reviewers so they can immediately see where a process needs to be changed. Each template maintains a version history so that changes are recorded. This is an important step for WPP, as it can analyze the data from the checklists to see if any changes to the process resulted in improved outcomes.

In the physician credentialing application, credentialing power users have the ability to define credentialing task lists. Based on the entity, hospital and specialty of the doctor being credentialed, the end user is displayed with different tasks. Tasks can vary from verifying a doctor’s state board is valid to ensuring a specific document is in the file. These templates can be modified from run-time configuration rather than design-time configuration. Therefore, when something changes on a template, a business analyst or trained administrator can make changes to the solution without having to call IT or the vendor.

4.3 Organization & Social

The case management solution has made it much easier for WPP to onboard and off-board employees to specific job functions. Processes are documented in the process control application, reviewed and approved by managers, and deployed to staff for implementation. WPP’s culture reflects a strong emphasis on knowledge-sharing and a commitment to a consistent approach with process control as one of the main implementation vehicles.

Employees are also more easily able to provide process feedback directly to managers and supervisors. And, with enterprise-wide dashboard views, the entire workforce has increased visibility into how they are impacting the bottom line, which increases employee engagement.

Finally, by eliminating manual, tedious work, WPP allows staff to focus on higher value activities. For example, by automating its physician compensation formula
and putting it into a process control application, WPP was able to transfer a senior accountant who was doing much of that work to a valuable budgeting role.

5. **Hurdles Overcome**

   **Management**

   This initiative was sponsored by WPP’s President and CEO, and therefore the project benefited from a top-down implementation that quickly garnered the commitment of all management tiers. WPP’s biggest challenge was getting everyone to understand how such a system could work and the benefits to their area when fully implemented.

   **Business**

   During the initial implementation process, WPP worked with supervisors and staff throughout the organization to create checklists that supported their policies and procedures. However, WPP quickly noticed that the content associated with the checklists was incomplete. The organization revised its training curriculum and created classes focused solely on how to develop proper checklists that effectively support functional policies. Additionally, managers were required to approve checklists for their departments, making them accountable not only for creating checklists, but also for the checklist content.

   **Organization Adoption**

   Though the average user was used to working on “tribal knowledge” checklists, ensuring proper documentation and organization of his/her checklists for wide distribution was a major hurdle. With a dedication to transparency and accountability, WPP was able to focus all stakeholders on providing quality content for their checklists and also motivate them to regularly create and complete checklists. For example, the TV dashboards provide real-time statistics on who has and has not completed their checklists. Additionally, every Monday morning WPP’s executive team receives analytics data on processes that were scheduled for completion but not completed. As a result of these practices, 97% of WPP’s checklists are completed on time.

6. **Benefits**

   **6.1 Cost Savings / Time Reductions**

   So far in 2014, WPP has roughly 2,200 unique checklist templates (policies and procedures) in its process control application. The application has generated about 40,000 total checklists, and 97% of these checklists are completed on time. Additionally, with the implementation, IT system uptime has improved from 85% pre-solution to 98% post-solution.

   **6.2 Quality Improvements**

   In the spirit of continuous process improvement, WPP uses the process control application to maintain its 99% patient insurance eligibility rate year-over-year. The application assists by providing personnel with the necessary reminders and guidelines to proactively check for and resolve potential conflicts that could negatively impact patient experience and, subsequently, be more expensive to address later on.

   Additionally, with 35% growth last year and similar growth expected this year, WPP utilizes the process control, credentialing and other case management applications
to consistently meet service-level requirements for onboarding providers and clients.

7. **Best Practices, Learning Points and Pitfalls**

   7.1 **Best Practices and Learning Points**

   ✓ Perform discovery and collect all necessary data up front. Everyone is working off these checklists – not just certain departments. Because this is a company-wide implementation, it pays off to spend the time understanding all the elements, where the data is coming from and what type of decisions are made based on that data.

   ✓ Visibility should go beyond just management. Displaying dashboards throughout the organization increases accountability and engagement.

   ✓ You can’t always use traditional workflow to map out these types of “knowledge processes.” Instead, you can capture the information first, then start to identify relationships, related tasks and potential steps that can be automated to improve processes.

   7.2 **Pitfalls**

   ✗ Avoid trying to work out the workflow before understanding what the process truly is and all the data elements involved.

   ✗ If you don’t take the time to first collect all the data and do a true discovery, you will waste time and effort.

8. **Competitive Advantages**

   WPP’s proprietary software and centralized management systems – including the case management applications – combine to help drive its mission of enhancing the health of its community. Leveraging this innovative technology, WPP can control costs while making care delivery more effective and efficient. “At WESTMED,” explains Dr. Schwartz, “if a woman has an abnormal mammogram in the morning, we can get her an appointment with a quality breast surgeon the same day, a biopsy by five o’clock, and the results by noon the next day.” All of those care-related processes, from imaging to the lab work, are done in-house.\(^2\)

   Additionally, by increasing process quality, consistency and efficiency, WPP continues to pursue its self-identified critical success factors, specifically to be: the best place for patients to receive care, the best place for physicians to practice medicine, and the best place for employees to work.

9. **Technology**

   WPP worked with its existing ECM vendor and utilized its flexible enterprise case management platform. Through this partnership, WPP has been able to conceptualize, configure and deploy a number of case management solutions within its organization, including extensive process control applications and a host of comprehensive case management applications, such as physician credentialing.

   The process control solution is entirely built on a rapid point-and-click application development platform provided by the company’s ECM vendor. This platform combines document management, business process management (BPM) and customer relationship management (CRM) capabilities into a single application. This infrastructure allowed the application to be rapidly developed as it was built on WPP’s existing ECM platform, taking advantage of existing inherent functionality, such as security controls, audit trails, document management, dashboards and calendar

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views. All the checklist and case management applications can easily connect to other content (documents, folders and other items) in the repository.

Because they are built on the existing ECM platform, the checklist and case management applications can seamlessly interact with the WPP e-mail and calendar systems. Through this interaction, notifications of checklists are automated and can populate a user’s calendar with expected completion dates and times. The individuals using these applications can use the same web client interface and smart client interfaces available with their ECM solution. Both are designed for enterprise use and are built with Microsoft.Net tools such as C#.

10. THE TECHNOLOGY AND SERVICE PROVIDERS

About OnBase by Hyland

OnBase is a flexible and comprehensive enterprise content management (ECM) solution that helps organizations manage documents and data to streamline business operations. Integrating with everyday business applications, OnBase provides instant access to critical information when you need it, wherever you are. OnBase grows with organizations as needs change and business evolves. For more information, please visit OnBase.com.

About Hyland, Creator of OnBase

For over 20 years, Hyland, creator of OnBase, has helped our more than 13,000 lifetime customers by providing real-world solutions to everyday business challenges. That dedication is why 98 percent of our customer base continues to renew our partnership and receive access to the latest product enhancements. Named one of Fortune’s Best Companies to Work For® 2014, Hyland continues to thrive and develop one of the most flexible and comprehensive enterprise content management (ECM) solutions available.

For more information, please visit OnBase.com.
Section 2: ACM Strategy and Business
Understanding and Evaluating Case Management Software


1. INTRODUCTION
Case Management is an approach to both process and information management that exposes structured and unstructured business information (business data and content) and allows collaborative teams to execute work in a secure but transparent manner. It is sometimes incorrectly regarded as a separate management discipline from Business Process Management (BPM). Yet just as often it also struggles to be understood on its own terms as helping to further expand BPM with new concepts.

This inherent confusion which still surrounds the “BPM vs Case Management” discussion is exacerbated by the leading analysts groups who have been unwilling to standardize on terms. Forrester, for example, has fairly consistently talked about “Dynamic Case Management” software products, without directly addressing the overlap between their list of these and their list of BPM products. While Gartner has yet acknowledge case management as a distinct category of software and sought to pigeon-hole products as “Case Management Frameworks” or “CMF’s” using phrases such as “…a CMF and the BPMS it runs on” to make the concept of case management intractable from BPM or BPMS.

Both competing approaches have elements of truth and inaccuracy. The fact is, Case Management software is a distinct category and is not simply as a use case or implementation pattern for traditional BPMS. Yet Case Management is an important part of the broader BPM landscape and fundamental to the redefinition of BPM in recent years. This chapter provides a perspective for understanding and evaluating the most advanced platforms for delivering case management – specifically Adaptive Case Management (ACM) – as a specific category of BPM software, distinct from the more traditional, integration-centric BPM. The material presented here is meant to inform those seeking to acquire or use case management software, and to provide help in finding the correct solution as opposed to selecting from the correct “magic quadrant” or other arbitrary round-up.

2. CASE MANAGEMENT AND ACM OVERVIEW
As its own term of art apart from what is thought of as traditional BPM, case management is the fortunate and necessary byproduct of a growing understanding, as well as epiphanous revelation, that many of an organization’s process spaces involve “cases” and not “transactions.” In such situations, the knowledge worker needs help in making decisions and otherwise managing the case in ways that go beyond the straightforward automation of routine and largely procedural activities. Hence, the optimal software solution may not turn out to be what a traditional BPMS does or aspires to offer, but rather a new class of software solutions that
more directly address the needs of the knowledge worker performing case management.

Case management inevitably involves content-intensive and data-driven processes, such as the creation of supporting documentation that surrounds a process or other operations, such as an investigation. It likely involves the creation of checklists, delivery of user guidance, and the associate tracking and reporting. Specifically, cases would represent a master system of record for all projects and other process-related activity through the project lifecycle, capturing the “what” (data, files, email, messages, etc.) and the “how” (an audit trail and activity log of decisions made, rules applied, actions taken, etc.) within a virtual case folder. In this way, the new case management system will facilitate effective collaboration around projects as well as better data and records management through the ability to identify, organize, and share critical information.

Case management systems by their very nature are dynamic, adjusting the workflow based on changes in the informational context and events driving the case forward in a manner that the system can understand. Some case management systems can also be said to be “adaptive” (in the ACM sense). This refers to the characteristic that such systems are not explicated, programmed, or hand-coded by specialists as in the past, but instead can be dynamically modified by ordinary users in the course of their work.

This orientation frames the definition of ACM systems as those that are not simply ad hoc and devoid of any manageability, but are able to support decision-making and data capture, while giving users the freedom to apply their own subject matter expertise to respond to unique or changing circumstances within the business environment. A core quality of ACM is support for collaborative, goal-driven processes, where goals can be modified “in flight” by users with appropriate authority. Similarly, knowledge captured during the performance of the case can support the identification and creation of new processes or case rules, without requiring IT/developer involvement.

For example, consider how an ACM system would address the space of a project. An ACM system will enable predefined tasks and role-based processes such as “Request Review” and “Approve Project” as well as generate a project checklist and track project status using core BPM capabilities. Yet the larger focus of this type of system will be centered on managing the entire project life cycle, from planning and submission, reviewing acceptance, performance and eventually closure and archiving. This larger scope demands the broader functionality offered through an ACM framework, which is not available through alternative approaches.

Throughout the project life cycle, the project and related work will be subject to defined policies and business rules. It will require guidance to the user on standard operating procedures. At various points, the achievement of milestones may involve specific tasks occurring within the system, such as a fillable form, or other checklist item required to be performed by a user. This may even involve a purely human task occurring entirely outside of this system. In each situation, the “case flow” involves a series of activities that have known outcomes or goals associated with them. What isn’t known is the exact combination and sequence in which the activities must be performed. Often, the next required activity or task cannot be determined until the current activity has been completed.

This pattern fits well with ACM, but not traditional or integration-centric BPM, where the process must be scripted in advance such that the sequence of each activity is predetermined. Other software categories face similar limitations; they
address a portion of the requirements, yet leave significant gaps, particularly in comparison with the ease with which the capabilities can be implemented through ACM.

**Figure 1** below offers a comparison of four related software product types (ACM, ECM, CRM, and traditional BPM) with respect to how well they address the requirements aligned with the typical problem set which ACM targets.

<table>
<thead>
<tr>
<th>ACM</th>
<th>ECM</th>
<th>CRM</th>
<th>BPM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Support for one or more collaboration patterns, such as integration with external/third-party Instant Messaging platforms, to facilitate real-time discussions within a case (where this interaction is added to the case record and audit trail).</td>
<td>●</td>
<td>○</td>
<td>●</td>
</tr>
<tr>
<td>Enable automation of both tasks and workflows, able to be launched at any point within the case folder.</td>
<td>●</td>
<td>○</td>
<td>●</td>
</tr>
<tr>
<td>Provide a Virtual Case Folder and authoritative record of information (both structured and unstructured) from external Systems of Record (SORs) using standard integration (Web services, CMIS, RSS, WSRP, et al.) as the ability to populate the same repositories through similar methods.</td>
<td>●</td>
<td>●</td>
<td>○</td>
</tr>
<tr>
<td>Allow fine-grain tracking of status and activities according to roles, rules and context captured within the case folder (rather than solely predefined scripts).</td>
<td>●</td>
<td>○</td>
<td>●</td>
</tr>
<tr>
<td>Facilitate planning and user guidance according to business rules and the context or data within the case folder.</td>
<td>●</td>
<td>○</td>
<td>●</td>
</tr>
<tr>
<td>Support a context-aware knowledgebase populated with case histories as well as supporting data and documents.</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Allow role-based routing of the Virtual Case Folder based on inherited permissions and access privileges.</td>
<td>●</td>
<td>○</td>
<td>●</td>
</tr>
<tr>
<td>Incorporate Business Rules Engine (BRE) for policy enforcement and decision support.</td>
<td>●</td>
<td>○</td>
<td>●</td>
</tr>
<tr>
<td>Leverage existing channels (email, IM, SMS, et al.) for alerts and notifications (where this is not necessarily added to the case record or audit trial).</td>
<td>●</td>
<td>○</td>
<td>●</td>
</tr>
<tr>
<td>Apply governance to managing the specific configuration of policies, business rules, business processes models, and other artifacts defining how cases are managed.</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Systematically identify non-compliance within cases, as well as enable procedure for overriding of defined policies</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Provide Business Activity Monitoring (BAM) dashboard.</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Identify/present “Next Best Action” based on case context, business rules, and/or process optimization calculations.</td>
<td>●</td>
<td>○</td>
<td>●</td>
</tr>
<tr>
<td>Generate context-specific preformatted forms and response letters using case data and business rules.</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
</tbody>
</table>

*Figure 1: Comparison of ACM, ECM, CRM, BPM*
3. **Case Management Product Classification**

To properly understand and evaluate case management software, one must first define how it is similar to and/or different from other, traditional BPMSs. The standard (and still valid) way of achieving this result is to first see full-bodied BPM as covering both structured and unstructured process spaces, with traditional BPM addressing the former and case management addressing the latter. The next step is to overlay on top of this spectrum of process types the characteristics that dominate at each end of the spectrum, and to call out the transitions that occur as one moves across it. This approach is illustrated in Figure 2 below.

*Figure 2 – Spectrum of Process Types in BPM*

It is not just the characteristics of the automated processes that distinguish one pole from the other. The nature of the business problems being solved is also different at each end of the spectrum. However, just as was the case with process type, the differences are more distinctions of degree or emphasis: traditional BPMS solutions tend to be focused on optimizing cost and time, while true case management solutions tend to be focused on quality and value of the case outcomes. This leads to overlapping areas of focus, as shown in Figure 3 on the next page.
**Traditional BPMS Region**

These are the dominant features of software in the traditional BPMS region:

- Nodes in the process workflow are predefined, including exception handling, pre-ordered in sequence of execution for both the main path of execution and any exception paths.
- Generally must use an application server for traditional integrity because the work item is viewed and managed as a transaction.

The workflow will look something like what is illustrated in Figure 4 below, which is an a priori statement about what the process will do.

![Figure 4 - Workflow in Traditional BPMS Region](image)

Though not shown here, the Business Process Model and Notation (BPMN) process modeling language from the Object Management Group (OMG) is well-suited as the
procedural language for describing such deterministic behaviors and serving as the basis for executing the process.

**Hybrid System Region**

These are the dominant features of software in the hybrid system region:
- Nodes in the process workflow are predefined and designated as either mandatory or discretionary, and are not pre-ordered in sequence of execution since multiple permutations of possible paths exist
- May or may not use an application server for traditional integrity, depending upon whether the work item is viewed and managed as a transaction or as a case.

The workflow will look something like what is illustrated in Figure 5 below, which is both an a priori statement about what is possible for the process to do and an a posteriori statement about what the process ended up doing.

![Figure 5 – Workflow in Hybrid System Region](image)

Though not shown here, BPMN (following a state-machine design pattern) or Case Management Modeling Notation (CMMN), also from the OMG, can be used as the modeling language for describing such behaviors.

**True Case Management System Region**

These are the dominant features of software in the true case management system region:
- Nodes in the process workflow are neither predefined nor pre-ordered, but can be added as needed, and are best considered as eligible to occur until enabled to occur as a result of the changing state of the case and enacted as having occurred as the case advances through the workflow through one of many permutations of possible paths exist
- Do not typically use an application server for traditional integrity, because the work item is viewed and managed as a case and not a transaction.
The enacted workflow will look something like what is illustrated in Figure 6 below, which is only an a posteriori statement about what the process ended up doing.

Though not shown here, CMMN is can be used for describing such complex behaviors, but true process knowledge is only revealed through an after-the-fact examination.

A product that is pitched as more of a case management system offering than a traditional BPMS one can automate simple structured, non-traditional processes (e.g., correspondence tracking) that require little in the way of predefined exception handling and only nominal systems integration outside of typical document management technologies (for document capture, storage, retrieval, routing, etc.), but this would be leveraging only a fraction of the true power of such a solution. Its true power lies in being able to incorporate ad hoc moments and reconfigure the workflow adaptively.

Reconfiguration of the case workflow is rather easy to do for this class of software, and since there is no need for the traditional integrity that an application server would otherwise provide, deployment of changes to the automated business process are quick and straightforward to accomplish. Such changes alter the running process rather than extend it for the new exception, but appropriate and rich audit trail information is being captured throughout process execution both before and after any such change.

The key is to associate all of the related threads, using the case ID common to each thread. Such audit data, as is shown in Figure 7 (see next page) is virtually indistinguishable from the type of data that is typically used in process mining to generate a visualization of the process as a map and to support the analysis process performance using the map.
4. **WHAT DOES IT MEAN TO STABILIZE A PROCESS DESIGN DEPLOYED FOR EXECUTION?**

“Stabilizing” in this context means whether the executing process is accomplishing its intended objectives in the expected manner. Let us compare how it is determined for a modeled process that is executed by a traditional BPMS with one that is executed by a true ACM system.

In a traditional BPMS, the model is more of an a priori statement (that is prescriptive), so stability will be measured to determine if the ongoing and completed processing indicates whether normative corrections are needed in the design of the process. This will be achieved via changes in control flow and the business logic executing at the flow nodes.

A traditional BPMS platform will be focused on the transaction processing aspects of the workflow, and BAM process instance reporting will provide workflow statistics on that while KPIs attached to the flow nodes in the process sequence will also be reported via BAM. Orientation of this data is mostly towards measuring efficiency of the process (e.g., time-in-system for the work, cycle time of work at a flow node, whether or not QoS/SLA expectations are met during the workflow, etc.).

Stress in the stability of this type of system would be understood in terms similar to what is understood as stress in most IT systems – namely, system latency, system resource contention, user backlogs, etc. Addressing such stresses would be pursued as a redesign of the system (or process).

In a true ACM system, the model is more of an a posteriori statement (that is descriptive), so stability will be measured to determine if the ongoing and completed processing indicates whether normative corrections are needed in the understanding of the process, which will be achieved via changes in the informational context for decision-making and the rules that affect decision-making.

A true ACM system will be focused on the state of the case aspects of the workflow, including outcomes, and the BAM-equivalent will generate and report on audit data for the case as it advances through the workflow. Orientation of this data is mostly towards measuring effectiveness - e.g., how many cases were closed, how many cases were approved vs. rejected, who made what decision, etc.

Stress in the stability of this type of system would be understood in terms similar to what is understood as stress to the knowledge worker – namely, information...
overload, resource contention over routine vs. value-add work, user backlogs, etc. Addressing such stresses would be pursued as a redesign of the informational and decision-making contexts.

Keep in mind that these two poles describe positions on a continuum of different types of business processes. Thus, the distinctions called out here are more of differences of degree of emphasis than mutually exclusive characteristics. For example, effectiveness might be defined for a health care delivery process as minimizing wait times between doctor examinations as well as the realization of positive medical outcomes, just as efficiency might reverse these in order of importance.

5. **WHAT ARE THE IMPLICATIONS OF DIFFERENT DESIGN APPROACHES FOR MODELING EXECUTABLE PROCESSES?**

Different design approaches are applicable for different types or different aspects of processes. For example, the structured and unstructured aspects of a process typically require different approaches. However, all approaches have in common the removal of ambiguity about intended behaviors in the design because the system platform cannot execute it otherwise. Let us examine these differences for a modeled process that is executed by a traditional BPMS vs. one that is executed by a true ACM system.

A traditional BPMS application or a true ACM system application is (or should be) predicated on a process design/reengineering project, having first created a reasonably stable model to hand off for deployment as the pilot. This is really a question of how much of the application design has to be correct for the pilot, and if one assumes the 80-20 rule, then 80% of the design should be correct before deploying.

Let us further assume that the design delta (the gap between the actual design and the correct design) for the structured portion of a process is with respect to the procedural logic that is understood at design time (i.e., the business logic, control flow logic, etc.), while the design delta for the unstructured portion of the process is with respect to the declarative logic that is understood at design time (i.e., state transition logic, informational context, fuzzy decision-making rules, etc.). Thus, the 20% that is not correct is some mix of these deltas, with the mix depending on the makeup of the modeled process.

A process that is automated by a traditional BPMS will typically be one that consists of far more structured elements than unstructured ones (e.g., 75% vs. 25% of the process). This means the process is well-suited for being designed with a procedural language. A good pilot design would be one where (within the timeframe of the pilot) a large proportion of the overall design is known with respect to the structured elements (e.g., 60% calculated as 80% of 75%) and a small proportion of the overall design is known with respect to the unstructured elements (e.g., 20% calculated as 80% of 25%). Addressing the design delta would be addressed through new releases.

Support for the integration phase of work in deployment has to be supplied by the power of the modeler/IDE being used. In this case, it should support redesign that can really be tested BEFORE deployment, which makes this more like a standard software release management context. Such logic typically cannot be changed on the fly (as in a hot deployment), although abstracted logic, like a rules engine invocation, can change internally without consequence if I/O is the same.

A traditional BPMS platform typically comes as a complete set, with the only variation being the type or make of the application server on which it runs (and thus
the various extensions to same it makes available). The skill set needed for development and deployment is heavily biased in favor of the BPMS platform, but also the application server on which it typically runs. This may create some common competencies due to the standardized nature of application server features. For example, a software engineer knowledgeable about one traditional BPMS platform that runs on Java-based application servers is likely to be able to quickly become knowledgeable about another traditional BPMS platform that also runs on such servers.

A process that is automated by a true ACM system will typically be one that consists of far more unstructured elements than structured ones (e.g., 75% vs. 25% of the process). This means the process is well-suited for being designed with a declarative language. A good pilot design would be one where (within the timeframe of the pilot) a large proportion of the overall design is known with respect to the unstructured elements (e.g., 60% calculated as 80% of 75%) and a small proportion of the overall design is known with respect to the structured elements (e.g., 20% calculated as 80% of 25%). Addressing the design delta would be addressed through new releases.

Support for the integration phase of work in deployment has to be supplied by the power of the modeler/IDE being used. In this case, it should support redesign that can really be tested AFTER deployment, which makes this less like a standard software release management context. Such logic typically can be changed on the fly (as in a hot deployment), though connecting the audit data across affected process threads can prove problematic.

A true ACM system platform generally comes as a lightweight software component, and typically without reliance on an application server. The skill set needed for development and deployment is heavily biased in favor of the ACM system platform, which may not create common competencies due the platform’s own idiosyncratic design concepts and vocabulary. For example, a software engineer knowledgeable about one true ACM system platform is not necessarily likely to be able to quickly become knowledgeable about another true ACM system platform.

Traditional BPMS platforms have been around for long time and have long been the purview of large system integrators, as VARs and/or (presumably) trusted sources for needed technical skill sets, but true ACM system platforms are still emerging and have yet to become so aligned. For the time being, this gives the true ACM system vendor community the edge over system integrators because they do know the platforms. However, this edge may ebb away as case management concepts and vocabulary become more standardized through evolution of the technology and associated standards (such as CMMN).
Section 3: Appendices
About the ACM Awards

The Workflow Management Coalition (WfMC) inaugurated a Global Awards program in 2011 for Adaptive Case Management case studies to recognize and focus upon CM use cases.

These awards are designed to highlight the best examples of technology to support knowledge workers.

Read more here: http://adaptivecasemanagement.org

If you are a service provider, the Awards are important to you if your product or service helps people coordinate their tasks. It is OK if you don't call it "case management."

The WfMC Case Management Excellence Awards are about ANY technology that supports ad-hoc task tracking and information sharing. The awards are designed to help show how flexible, task tracking software is increasingly used by knowledge workers with unpredictable work patterns. Nominate your customers' success stories here.

Get recognized for your vision and your team's superb efforts by entering the Global Excellence Awards

Co-sponsored by WfMC and BPM.com, these prestigious awards recognize user organizations worldwide that have demonstrably excelled in implementing innovative Case Management solutions.

WfMC works with leading industry analysts Forrester and Gartner who use these case studies to analyze upcoming technology suppliers, illustrate trends, industry growth, ROI and more...

THE EXCELLENCE AWARDS OPEN ANNUALLY FOR SUBMISSIONS IN DECEMBER.

http://adaptivecasemanagement.org/

The WfMC Awards for Case Management are the ideal way to be recognized by the industry worldwide, to publicly acknowledge and recognize the efforts of your team and to inject passion into your case management projects.

Read 2014 winners' highlights here.

In 2012 nine teams were awarded top honors at the ACM Live Event in June, and were featured in the best-seller book, "How Knowledge Workers Get Things Done."

In 2014 winning submissions were published in "Empowering Knowledge Workers"

WESTMED and others winners are profiled in the 2015 book "Thriving on Adaptability: Best Practices for Knowledge Workers."
Glossary of Terms
Adaptive Case Management

To have a meaningful discussion, we must start with clear definitions.

- **activity**—A description of a piece of work that forms one logical step within a process. It is the basic unit of work within a process. Presumably, work could be subdivided into units smaller than a given activity, but it is not meaningful for the organization to track the work to that level of detail. Synonyms include node, step, and task.

- **adaptive case management (ACM)**—A productive system that deploys not only the organization and process structure, but it becomes the system of record for the business data entities and content involved. All processes are completely transparent, as per access authorization, and fully auditable. It enables nontechnical business users in virtual organizations to seamlessly create/consolidate structured and unstructured processes from basic predefined business entities, content, social interactions, and business rules. It moves the process knowledge gathering from the template analysis/modeling/simulation phase into the process execution phase in the lifecycle. It collects actionable knowledge—without an intermediate analysis phase—based on process patterns created by business users. ACM differs from business process management (BPM) and from human interaction management (HIM) in that the case information is the focus and the thing around which the other artifacts are organized. And it is the case information that persists for the long term.

- **ad hoc process**—See emergent process.

- **agile methodology**—To move quickly and lightly. In reference to solution development, it is a method where many short iterations are used, with many quick (internal) releases, so that the nontechnical customer of a solution can be more actively involved in guiding the course of development. The agile approach to development is known to produce solutions that better meet the needs of the customer, and it also allows for greater responsiveness to external changes in requirements.

- **analytics**—A mechanism for collecting and processing statistics. Process analytics will gather and process statistics about the running of processes in such a way that it is useful for evaluating how well the process is running.

- **best practice**—An approach to achieving a particular outcome that is believed to be more effective than any other approach in a particular condition or circumstance.

- **business operations platform (BOP)**—A next-generation technology platform oriented toward continuously designing, executing, monitoring, changing, and optimizing critical business processes proposed by Fingar (2009).

- **business process**—A set of one or more linked activities which collectively realize a business objective or policy goal, normally within the context of an organizational structure defining functional roles and relationships.
- **business process execution language (BPEL)**—A standard executable language, based on XML, for describing a process that uses web service calls to communicate with the outside world.

- **business process management (BPM)**—The practice of developing, running, performance measuring, and simulating business processes to effect the continued improvement of those processes. Business process management is concerned with the lifecycle of the process definition. BPM differs from adaptive case management (ACM) and from human interaction management (HIM) in that its focus is the process, and it uses the process as an organizing paradigm around which data, roles, and communication are organized. Process models are prepared in advance for particular situations, and the performance can be measured and monitored so that over time the process will be improved.

- **business process management suite/soft ware/system (BPMS)**—A software system designed to support business process management. The acronym BPMS is used to distinguish the technology product from the management practice of BPM.

- **business process modeling notation (BPMN)**—A standard set of graphical shapes and conventions with associated meanings that can be used in modeling a business process.

- **business process orientation (BPO)**—A concept that suggests that organizations could enhance their overall performance by viewing all the activities as linked together into a process that ultimately produces a good or service.

- **business rules engine (BRE)**—A software system for managing and evaluating a complex set of rules in a business processing environment. A business rule is a small piece of logic that is separated from the application logic so that it may be managed separately from the application code. Rules are often expressed in a language that is more accessible to non-programmers.

- **case**—The name given to the specific situation, set of circumstances, or initiative that requires a set of actions to achieve an acceptable outcome or objective. Each case has a subject that is the focus of the actions—such as a person, a lawsuit, or an insurance claim—and is driven by the evolving circumstances of the subject.

- **case file**—Contains all of the case information and processes, and it coordinates communications necessary to accomplish the goal for a particular case. A case file can contain information of any type including documents, images, video, etc.

- **case management**—A method or practice of coordinating work by organizing all of the relevant information into one place—called a case. The case becomes the focal point for assessing the situation, initiating activities and processes, as well as keeping a history record of what has transpired. Beyond this generic definition, case management has specific meanings in the medical care, legal, and social services fields. For this book, we see case management as a technique that could be used in any field of human endeavor.

- **case owner**—A person (or group of people) who is responsible for the outcome of a case. The case owner can change any aspect of a case and is actively involved in achieving the goals of the case.
• **clinical pathway**—a method that medical professionals use to standardize patient care based on accepted practice guidelines.

• **commercial-off-the-shelf (COTS)**—Describes software or hardware products that are ready-made and available for sale to the general public. This term is used to distinguish such product from custom software and hardware made specifically for a purpose that is presumed to be more expensive to produce and maintain.

• **crowdsourcing**—Identify evolving trends and best practices through continuous analysis of social interactions and conversations²

• **customer relationship management (CRM)**—Technology to manage a company's interactions with customers and sales prospects.

• **dynamic case management**—Support real-time, incremental and progressive case-handling in response to changing events by leveraging collaborative and information-intensive BPM.²

• **emergent process**—A process that is not predictable. Emergent processes have a sensitive dependence upon external factors outside of the control of the process context, which is why they cannot be fixed according to their internal state. Workers involved in an emergent process will experience it as planning and working alternately or at the same time, such that the plan is evolved as the work evolves. Synonyms include ad hoc process and unstructured process.

• **enterprise content management (ECM)**—Strategies, methods, and tools used to capture, manage, store, preserve, and deliver content and documents related to organizational processes. ECM strategies and tools allow the management of an organization’s unstructured information, wherever that information exists.

• **enterprise resource planning (ERP)**—Computer system used to manage resources including tangible assets, financial resources, materials, and human resources.

• **extended relationship management (XRM)**—A discipline of mapping and maintaining relationships between any type of asset in very flexible ways, for the purpose of leveraging those relationships in business rules or business processes.

• **goal-oriented organization design (GOOD)**—The change management methodology associated with human interaction management (HIM), which defines 3 standard Stages: Design (scope definition, business motivation modeling, benefits definition), Delivery (requirements management, stakeholder management, operational transition, risk management) and Optimization (marketing & communications, benefits realization). Each Stage has associated Roles, Activities and Deliverables.

• **human interaction management (HIM)**—The practice of describing, executing and managing collaborative human activity according to 5 standard principles (effective teams, structured communication, knowledge management, time management and dynamic planning) so as to achieve optimal results. HIM differs from business process management (BPM) and adaptive case management (ACM) in that its focus is definition of goals, assignment of associated responsibilities, and management of the resulting knowledge. Templates describing Stages, Roles, Activities and

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² Forrester Research, USA
Deliverables are used to generate executable Plans that evolve during usage and may be re-used as new templates.

- **knowledge work**—A type of work where the course of events is decided on a case-by-case basis. It normally requires a person with detailed knowledge who can weigh many factors and anticipate potential outcomes to determine the course for a specific case. Knowledge work almost always involves an emergent ACM/BPM process or HIM Plan template.

- **knowledge workers**—People who have a high degree of expertise, education, or experience and the primary purpose of their job involves the creation, distribution, or application of knowledge. Knowledge workers do not necessarily work in knowledge intensive industries.

- **lifecycle**—This book uses lifecycle only in regard to the work of creating a solution. The development lifecycle of a solution might start with definition of requirements, development of a process definition, development of forms, testing, deployment of the solution into production, use of the solution by many people, and finally the shutting down of the solution. The lifecycle of a solution may involve monitoring the running process instances and improving those process definitions over time. Note: A solution has a lifecycle that takes it from start to finish; a case has a process or processes that take it from start to finish.

- **model**—A simplified summary of reality designed to aid further study. In the business process field, a process model is a simplified or complete process definition created to study the proposed process before execution time.

- **node**—See activity.

- **online transaction processing (OLTP)**—A class of systems where time-sensitive, transaction-related data are processed immediately and are always kept current.

- **organizational agility**—That quality of an organization associated with sensing opportunity or threat, prioritizing its potential responses, and acting efficiently and effectively.

- **predictable process**—Process that is repeatable and is run the same way a number of times. Synonyms include definable process, repeatable process, and structured process.

- **process definition**—A representation of a business process in a form that supports automated manipulation, such as modeling or enactment by a process management system. The process definition consists of a network of activities and their relationships, criteria to indicate the start and termination of the process, and information about the individual activities, such as participants, associated IT applications, and data. Synonyms include process diagram and workflow.

- **process diagram**—A visual explanation of a process definition. Synonyms include process definition, process model, and process flowchart.

- **process flowchart**—See process diagram.

- **process instance**—A data structure that represents a particular instance of running of a process. It has associated context information that can be used and manipulated by the process. A process instance plays a role in a business process management suite (BPMS) that is very similar to but not exactly the same as a case in a case management system. A particular case may have more than one process instance associated with it.
• **Process model**—A simplified or complete process definition created to study the proposed process before execution time. Synonyms include process diagram.

• **Records management**—Management of the information created, received, and maintained as evidence and information by an organization in pursuance of legal obligations or in the transaction of business.

• **Role**—An association of particular a user, or users, with a particular set of responsibilities in a particular context. In this case, responsibility means the expectation to perform particular activities for that context.

• **Routine work**—Work that is predictable and usually repeatable. Its predictability allows routine work to be planned to a large extent before the work is started. As the name implies, routine work is considered normal, regular, and it is not exceptional.

• **Scientific management**—An early twentieth century school of management that aimed to improve the physical efficiency of an individual worker by carefully recording precisely what must be done for a particular task, and then training workers to replicate that precisely. It is based on the work of Frederick Winslow Taylor (1856–1915).

• **Scrum**—An agile software development methodology emphasizing iteration and incremental development. Originally referred to as the **rugby approach**.

• **Service-oriented architecture (SOA)**—An approach to system design where the software functionality is deployed to a specific logical location (a service) and programs requiring that software functionality make use of communications protocols to access the service remotely. SOA has often been discussed together with business process management (BPM), but this connection is coincidental. While BPM might benefit from SOA the way that any program/system would, there is no inherent connection between managing business processes and the system architecture that supports them.

• **Social business**—An organization that has put in place the strategies, technologies and processes to systematically engage all the individuals of its ecosystem (employees, customers, partners, suppliers) to maximize the co-created value.

• **Social BPM**—Leverage social networking tools and techniques to extend the reach and impact of process improvement efforts.

• **Social network analysis**—Pinpoint historical activity patterns within social networks through the statistical mining of complex behavioural data sets.

• **Social process guidance**—Apply crowdsourcing and social network analysis techniques to deliver real-time contextual advice and guidance for completing a process task or activity.

• **Social software**—A class of software systems that allows users to communicate, collaborate, and interact in many flexible ways. Generally, such software allows users to form their own relationships with other users and then exchange messages, write notes, and share media in different ways.

• **Solution**—A package of artefacts (configurations, forms, process definitions, templates, and information) that have been prepared in advance to
help users address particular kinds of recurring situations. A solution may embody best practices for a particular kind of situation.

- **sphere**—a collection of people or other assets. Inclusion in a sphere can be based on business rules or can be a nested collection of other spheres. Spheres can represent nodes in a network of relationships or process flow in a workflow system.

- **step**—See activity.

- **straight-through processing (STP)**—The practice of completely automating a process and eliminating all manual human tasks. This term is typically used in the financial industry.

- **subject (of a case)**—An entity that is the focus of actions performed in the context of a case. For example, a person, a lawsuit, or an insurance claim.

- **task**—See activity.

- **template**—The general concept of something that is prepared in advance approximately for a particular purpose with the anticipation that it will be modified during use to more exactly fit the situation. A process template does not define a process in the way that a process definition does.

- **unstructured process**—See emergent process.

- **work**—Exertion or effort directed to produce or accomplish something. Organizations exist to achieve goals and work is the means to achieve those goals. The smallest recorded unit of work is an activity. Activities are combined into procedures and processes.

- **workflow**—The automation of a business process, in whole or part, during which documents, information, or tasks are passed from one participant to another for action according to a set of procedural rules. Synonyms include process definition.

These definitions are licensed under Creative Commons—you are free to copy and use them in any way that helps the pursuit of knowledge. It is not strictly necessary to reference this glossary, but we would appreciate a link back to this book. The bulk of this glossary is derived from the work done by Keith Swenson at http://social-biz.org/glossary and was originally assembled for inclusion in Mastering the Unpredictable.

**Accreditation guide if you quote from this glossary:** “Empowering Knowledge Workers” 2014 published by Future Strategies Inc. Lighthouse Point, FL. www.FutStrat.com
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- Society for Human Resource Management
  http://www.shrm.org

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- Wesley J. Howe School of Technology Management
  http://howe.stevens.edu/research/research-centers/business-process-innovation

- Workflow And Reengineering International Association (WARIA)
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