Oracle BPM for Insurance
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Executive Overview

Insurance companies have long recognized that they have a need to adapt quickly to new market opportunities, regulations, technologies, and customer and corporate needs. Many have to carefully navigate modifications to their existing complex infrastructures and processes with the introduction of new ones. Business Process Management (BPM) allows for the introduction of new technologies and streamlined business processes that can improve costs and visibility while at the same time protecting investments in legacy systems. Here, we describe how Oracle BPM might provide these benefits for insurers. Together with Oracle Insurance, Oracle BPM can be used to orchestrate new business, rating, underwriting, policy administration, and claims processes while providing insight into key insurance performance measurements. Legacy systems can still be utilized and made part of a virtual service catalog allowing for a more manageable migration from older platforms and processes to newer ones.

Introduction

With Oracle BPM, business users and IT can more easily collaborate to implement and maintain a system that eliminates unnecessary manual processes and allows for end-to-end visibility of new streamlined, automated workflows. Together with Oracle Insurance, Oracle BPM can be used to orchestrate new business, rating, underwriting, policy administration, and claims processes while providing insight into key insurance performance measurements.

Insurers will benefit from a catalogue of predefined and pre-integrated template product models, rules, and insurance applications. New business quoting, rating, underwriting, and policy administration tasks are easily integrated with predefined connectors for various third-party platforms and data services. Legacy systems can still be utilized and made part of a virtual service catalog allowing for a more manageable migration from older platforms and processes to newer ones.
Key issues in Insurance Industry

More than ever, insurance companies are facing challenges to operating a stable and profitable business. Competition is fierce. Ever changing customer and corporate needs require rapid adjustments to portfolios and processes. Here are some of the key issues insurance companies are facing:

- **Old Technology** – Insurance companies have been slow to adopt new technologies and now find themselves with a patchwork of antiquated COBOL based mainframe applications that they can no longer update or consolidate to meet current technological and business needs. Mobile, social, and customer self-service trends are exacerbating the issue. Agencies and customers are far ahead of carriers in adopting new ways of doing business.

- **Slow or No Adaptability** - Political, regulatory, environmental, behavioral, and technological changes drive the need to make rapid changes to product portfolios and business processes. Reliance on IT to interpret and implement new business requirements consumes too much time and is error prone.

- **Increasing Regulations** - Dynamic, ever changing, strict regulatory requirements continue to affect business processes and strategies. New SEC guidelines for public filing of data security, consumer protection laws, HIPAA, SOX, Dodd-Frank, new tax compliance laws, etc.

- **Lack Of Analytics** – There is a lack of visibility into the status of applications and claims, across systems and partner channels with no way to monitor, evaluate, and manage existing processes. Real-time analytics are needed to respond to identifiable trends that could be causing a company to lose business or could provide opportunities to increase effectiveness and revenues.

- **Unstructured Collaboration** – Agencies and carriers, BAs and IT, customers and CSRs, in many cases, are still required to exchange too many documents, forms, and faxes. Communicating parties are often geographically diverse. Some have incorporated email, IM, and phone calls into their workflow, however, these apps are typically unrelated with no ability to share data context or communication history. These non-integrated and unmanaged collaboration tools hinder effectiveness.

- **Customer Expectations** – Carriers need to find new ways to enhance the customer experience and maximize per-customer profitability. With increased competition and economic strains, customers are harder to attract and retain than ever before. Customers want customizable solutions, convenient mobile self-service capabilities, savings for good behavior and multi-product portfolios.

Oracle Insurance Solution

The Oracle Insurance (OI) Suite integrates with Oracle BPM Suite to provide a powerful insurance-centric enterprise platform that can address many diverse process needs. These can be hosted on a single enterprise platform with common rules, business data, and services with end-to-end visibility.
security, and management. Reuse of common processes and data for different user channels is easily achieved while still allowing for overall unique channel workflows.

Applications in both the Insurance Suite and the BPM Suite have a strong emphasis on empowering business analysts (BAs) who know the business processes, products, and desired outcomes to be able to design and execute their models.

BAs can design processes that integrate Oracle and non-Oracle insurance applications. Oracle Insurance applications are designed to work in an SOA/BPM environment allowing for speedy realization of process implementation. Data capture, rating, underwriting, and policy administration applications by Oracle, all use meta-data and rules defined by business users. That meta-data can also be shared by the BPM Suite and used to define contextual process rules and workflow. These product data and workflow definitions are deployed directly from the design-time environments to the runtime environment for execution. This removes the need to have developers implement business data and workflow rules and rather lets them focus on implementation of custom services and service integration into the BPM platform which is also supported by tooling.

Figure 1. Oracle Insurance Reference Architecture
Oracle BPM for Insurance

Oracle Insurance Solution Components

The Oracle Insurance Suite consists of an integrated set of first-class applications for insurance. These applications are rules-based, adaptive, open, and secure. They allow you to define your business needs as the basis for application execution. They include the following:

- **Oracle Insurance Insbridge Rating and Underwriting** ([web page]) - is an adaptive, enterprise solution for product management, premium calculation & underwriting rules management. The application is the single point of rating truth, which allows insurers to respond quickly to market changes, effectively manage the lifecycle of a policy, and meet regulatory requirements.

- **Oracle Insurance Policy Administration for Life and Annuity** ([web page]) - is an adaptive policy administration system that provides full record keeping and support for all policy lifecycle transactions—from policy issue, billing, collections, and policy processing to claims.

- **Oracle Insurance Claims for Health** ([web page]) - provides automated claims adjudication for the full spectrum of healthcare claims. The application provides comprehensive, out-of-the-box support for a wide range of healthcare claims processes while being flexible enough to allow any healthcare payer to tailor the solution to its specific needs.

- **Oracle Documaker** ([web page]) - enables enterprises to dynamically create, manage, publish, and deliver adaptive enterprise content throughout the business lifecycle. It offers a cost-effective way to address the design, production, and multi-channel delivery of a broad spectrum of documents.

- **Oracle Business Process Management Suite** ([web page]) – is a modern, unified, adaptive, user-centric, and social business process management platform. It allows insurance companies to model their business processes, integrate them with legacy, new, and external systems, and manage and monitor cross department enterprise-wide workflows. It enables business users to own business process implementation while allowing for managed and integrated collaboration with IT. Real-time analytics, as well as real-time social collaboration features, provide an opportunity for insurance companies to improve their business performance and effectiveness.

Oracle BPM Suite

To create new business processes and improve existing ones, many Insurance agencies are deploying Oracle BPM Suite. Oracle BPM Suite is a set of tools for business managers, business analysts and developers that enable the efficient management of all types of business processes.

Oracle BPM is a best-in-class, enterprise grade, business process management suite that offers all of the commonly expected BPM capabilities but many unique features on top of that. It simplifies achieving process management success by delivering a complete solution for all types of processes with a unified process foundation, user-centric design, and social BPM interaction.
This unified, complete, and social solution includes a unified process foundation that simplifies process management with a unified process engine. User-centric design simplifies process modeling and interaction. Social BPM interaction enables collaboration providing new ways to communicate and simplify work. With Oracle BPM, you can design and execute any type of process including but not limited to human-centric, system or integration-centric, rules-centric, document-centric or case management processes. This complete business process management solution provides all that you need to innovate today and scale from simple to any type of complex processes when you are ready.

Oracle BPM Suite 11g is ideal for modeling, simulating, executing, and optimizing, business processes across divisions, systems, and applications. They provide a methodology and supporting tools to model and analyze business processes in a nontechnical, business-friendly manner, along with technology for implementing, executing, and monitoring end-to-end processes.

Oracle’s comprehensive BPM technology enables complete introspection into business processes so analysts can predict, architect, and enable interactions in ways that don’t slow down the cycle or interrupt the flow. They can model processes by defining the logical structure and sequence of the process itself, rather than its underlying technical implementation—without any technical knowledge of SOA, Web services, or XML.

Oracle developed a unified process foundation that simplifies and removes complexity from process development, deployment, monitoring, and execution. In addition, Social BPM interaction simplifies collaboration by incorporating the latest in social computing technologies and enabling a wide choice of communications channels. The integrated suite becomes your vehicle for continuous process improvement.
Figure 2. Continuous improvement across multiple channels via Oracle BPM Suite

This unique BPM toolset enables insurance institutions to lower the risk of process “gaps” within common insurance services processes including Underwriting, Policy Servicing, Claims Processing, Quote-to-Contract, Regulatory Compliance, and Risk Management. Oracle BPM facilitates compliance and reduces the risk by increasing visibility into these essential business processes while also improving efficiency.

Key Features of Oracle BPM

**Business Process Modeling and Analysis**

Business Modeling is part of the overall Product Configuration process used to define an insurance product. It allows a business analyst to define business objects and fields, rules, data values, organization structure, etc. Since business managers and people close to business operations are most aware of the processes, they should be the ones specifying the process design without the need to get into the technology weeds. Oracle Process Composer is a web based process modeling tool designed for business people allowing them to easily describe their process using a graphical designer. They can simply drag and drop business activities on the canvas and create process models.
Process design is never done in isolation. It needs input and collaboration from others. Oracle Process Composer allows business analysts to bring in the subject matter experts and design processes in a collaborative fashion. Process model design can be easily imported or exported into desktop tools for enhancements without any loss in fidelity.

Oracle BPM suite also provides a repository where the shared process components can be stored and reused, so you do not have to start from scratch every single time. The definitions of various components can be made available to all insurance processes via business catalog. You can pull in the pre-constructed components and make them a part of your process.

Process analysis is also a crucial component of process design. Business analysts can run simulations for various scenarios to identify if there are any bottlenecks in the process or if the process can be further improved before it is turned into a live insurance application.

Integration and Application Development

Oracle BPM studio supports a unique WYSIWYE technology. It means What You See is What You Execute. This allows for a superior collaboration between business and IT. The process models that are designed by business analysts can be easily imported into the developer toolset, BPM Studio without any loss of design. Application developers can then update the model with integration points or enrich the UI elements to convert the business processes into deployable applications keeping the
model designed by business intact.

Figure 4. Business and IT collaboration

There are various options available to integrate the process with other applications. Developers can integrate the process with legacy systems by easily configuring integration adapters or system steps. Oracle BPM enables connectivity to virtually any data source inside the enterprise. Oracle integration adapters are available for more than 300 packaged applications, for legacy and mainframes including Tuxedo, VSAM, CICS, and for technology and protocols including FTP, Files, Database, AQ, and JMS. Oracle adapters are standards based and support both web services and JCA.

Service-oriented architecture (SOA) has become a popular method for linking disparate applications across many different business lines and functions, thereby centralizing and improving process efficiency. SOA interoperates with all parts of the IT architecture, including security frameworks, to securely integrate business applications by moving applications onto a common service bus and a common workflow engine. It brings reusability to the IT infrastructure. Oracle BPM helps you to leverage your investments in SOA and use it to create seamless end-to-end composite applications that orchestrate activities across many systems. This means legacy systems can be amended with new functionality by including them in new BPM composite applications.

In the following example, Oracle BPM has been used to enable a policy issuance process that integrates legacy policy administration and billing with newly consolidated underwriting, rating, and documentation rules.
The scenario shows an agent using OI Insbridge Data Capture to collect insurance application info and submit it to the policy issuance service from a web-based agent workbench hosted in Oracle WebCenter Portal. That submission kicks of an Oracle BPM process that first validates the request against corporate underwriting and workflow rules, then, if successful, the application is sent to be rated and validated against more product or state level underwriting rules. Once all rating and underwriting validations have passed, policy submission to a legacy policy admin system (PAS), possibly hosted on a mainframe, is executed. The legacy PAS creates the customer and policy records, as it always has, and possibly kicks off other downstream legacy processes. After a successful policy submission, the BPM process is setup to send the new policy information to a legacy Billing & Revenue system which processes payment setup, calculates commissions, and possibly handles general ledger accounting. Finally the process submits all collected policy info to the document generation and automation component, Oracle Documaker, which generates and distributes all appropriate docs and forms based on documentation rules it been configured with.

In this example, if there is a failure during either of the underwriting rule steps, a message is generated and sent back to the agent notifying her of the reasons the submission could not go through. Additionally, a human workflow process is kicked off that adds a record of this case to an
underwriter's case list. With the social BPM functionally supported by Oracle BPM, the underwriter then has the option to collaborate with the originating agent directly inside the WebCenter Portal to resolve the issue and have her submit the policy again.

The agent and underwriter GUI components we described in our scenario, are all configurable as part of the Product Configuration process. Insbridge Data Capture Palette allows business users to design highly dynamic web-based questionnaires that an agent might use to integrate with Insbridge Rating and Oracle BPM. The underwriter’s workbench hosted process task lists, process history, and task detail views that can be designed by a business user using Oracle Process Composer. Oracle Process Composer and BPM studio support a comprehensive Form Editor to create rich user interaction forms. Business users can easily use the form editor to describe what information they want the end users to see.

![Image](image)

Figure 6. Easy to use form editor quickens the time to solution development

**Rules Management**

Oracle BPM suite supports all kinds of rules that you may need to articulate your business policies. There rules can be added to the process models as process conditions, decision tables or as system steps that may call any other enterprise policy system like Oracle Insbridge.
Figure 7. A step in the process invokes a rule. Rules can be defined by business users.

Commonly the rules are managed by a separate group of people than who design the process. Oracle supports the externalization of rules so that if the business condition changes you can change the policy rule independent of the process. This means agility for your business. You no longer have to deal with rigid applications and wait months if there is a need to update a process or a rule.

Social Collaborative and Personalized Workspace

Oracle BPM suite provides a workspace where the end users go and perform their daily tasks. These tasks may include processing a claim, or opening a dashboard to see your team’s performance. It becomes a central desktop to perform tasks, check the status of a task, or view performance. This workspace is very configurable, and end-users can personalize the workspace as per their needs. The Oracle workspace is designed for collaboration. If at any point in time the claims worker feels a need to discuss a situation with a peer or subject matter expert, he can do that. The process participants can include people external to your organization also making agency and carrier collaboration possible.
Various algorithms are available for task assignments and escalations. You can distribute the tasks or any step in the claims process using skill based routing or round-robin kind of assignment rules. This flexibility ensures that the operational managers can utilize their team effectively and maintain the optimum work load on users.

**Measurement and Monitoring**

One of the key requirements of a business is to have visibility into its end-to-end operations to understand how it and its supporting teams are performing. It needs this information in real time so it can steer its business as per the changing conditions. Reports displaying historical data are just not enough. Many times this is not possible due to disjointed systems or lack of information. It takes too much time to gather information from multiple systems and pull the data into spreadsheets and make sense of it.

Meaningful patterns can be identified by capturing key performance indicators in real time. These can be used to help improve business effectiveness. An insurer might define and monitor any number of metrics such as:

- UW rejects per product and day / hour
- UW reject reason and count
- UW accepts per day / hour
- Successful rate request per day / hour
- Unsuccessful rate requests per day / hour

Figure 8. Web and mobile workspaces
- Policy issuance requests per day / hour
- Unsuccessful policy issuance requests per day / hour
- Elapsed time to rate per rate request
- Elapsed time to issue per issue request
- Elapsed time from start of new business quote to policy issuance per new business quote
- Policy issuance requests per product per day / hour
- Rated policies per product per day / hour
- Policy issuance requests per product per agency / agent
- UW rejects per agency / agent
- UW rejects per underwriter
- Submitted premium per product per day / hour

Oracle BPM utilizes business activity monitoring to capture the events and data as the process advances. The events are collected for each step of an end-to-end process even if a step in the process is happening in an external system like SAP. This powerful functionality provides a timely overall picture to business managers so they can make more timely informed decisions.

These monitoring controls combined with BPM security integration support many of the regulatory requirements set forth by SOX, HIPPA, and the SEC.
Business value of BPM

Key values a business can derive from BPM are visibility, agility, and efficiency. Long term business success depends on these values.

Business visibility is all about seeing what is occurring in the business. If you can’t see change, you certainly can’t adapt to it. Improving business visibility requires information availability at the right time. Real-time visibility with the analysis of events and processes provides the most accurate and timely information to aid decision making. Repeatable and measurable processes that cross departmental and system silos help to provide a better understanding and the ability to predict trends. Dashboards of role specific information increase business visibility and operational confidence enabling better decision making in a timely manner. Visibility is also critical to make sure you comply with SLAs committed to your customers as well as meet all regulatory standards mandated by various agencies.

Improving efficiency means better worker productivity. BPM can help improve efficiency by providing tools, like process simulation, to analyze the processes at the design time so you can eliminate bottlenecks and expensive paths from your process. It also provides efficiency in building and managing process applications by aligning tasks with responsibility across business and IT functions. Efficiency to create solution is improved by simplifying the application design, development, and management tasks by using unified tools.

Lastly, better management and automating of business processes can dramatically reduce cycle times and cost. It can enable redeployment of labor and remove the inefficiency of paper-based processes.

There are many ways to measure efficiency. The actual metrics depends on your business. You may measure it in terms of cost savings, workers’ productivity, effective reuse, and improved quality of output.

Business agility is all about being able to adapt to the changing circumstances. Clearly, visibility, agility, and efficiency are all inter-related, but if your systems are not designed to change easily, even the most efficient organization with good business visibility will be at a disadvantage. If there is a need to change the business process due to change in business demands, you should be able to make that change immediately. You should not have to wait for months for updating applications as forced by rigid packaged application systems.
Greater efficiency frees up resources that are key to making timely changes. The right level of visibility gives you the confidence that the change is the right course. Most important, however, is that your infrastructure support adaptation and provide component reusability so that dynamic change is possible.
Conclusion

Oracle BPM allows legacy systems to be wrapped into virtual services that become part of a catalog of system capabilities. These can then be used in any process in conjunction with other virtualized services to create new composite applications. A controlled transition from legacy to new systems is possible, providing opportunities to consolidate rules and rating, deploy rich front ends, mobile apps, and seamlessly integrate with other third party services. This enables insurance companies to deliver an effective customer experience expected of a modern company.

With the consolidation of rules and workflow design, BAs are given a powerful toolset for adapting quickly to new product and business process needs. The processes modeled by the BA become the executable applications.

BPM processes are inherently documented. Once deployed, they can be monitored with different dashboard views for different user roles. User definable analytics can be configured to collect key performance and financial metrics. These can support trend analysis which could identify causes of lost revenue or opportunities to increase it. In addition, this visibility is needed for regulatory compliance.

Social collaboration features allow insurance companies to design creative user communication spaces tailored to specific user types and for specific contexts. Efficient access to relevant data when communicating with stakeholders, can improve overall company effectiveness and user satisfaction.

Oracle BPM is a platform that can address many issues insurance companies are now facing with their day-to-day operations. Combined with Oracle Insurance applications, insurance companies will benefit from a very robust insurance-centric business processing platform that can provide a smooth transition from legacy to next generation process management and integration. With an emphasis on business empowerment, real-time monitoring, and effective user collaboration, Oracle BPM for Insurance is an ideal platform for insurers.

For more information on Oracle BPM go to oracle.com/BPM