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**Project Name: Transforming Healthcare Member Enrollment for Greater Efficiency**

Sandra Yin: Hello, everyone, and welcome to Transforming Healthcare Member Enrollment for Greater Efficiency. I'm Sandra Yin, Senior Editor of FierceHealthcare, and I'll be moderating this webinar presented by IBM.

Just a few technical notes before we begin. If you have trouble reading a slide, please click Enlarge Slides on the bottom right corner of the webinar window. Please also disable your pop-up blocker to participate in the interactive parts of this presentation.

Our speakers today are John Walsh, Chief Enterprise Architect at HealthNow; Ed Castine, Director of Solutions at Leveraging Technology Inc., and Maneeza Malik, Industry Practice Leader for Healthcare & Life Sciences at IBM.

You can read their full bios on the left side of your window.

During today's webcast, our speakers -- I'm sorry. Our speakers will discuss the approach HealthNow to building a smarter member enrollment process. Speakers will also discuss best practices for leveraging technologies such as Business Process Management and Business Rule Management Systems, to overcome process silos, as well as how BRMS is used across healthcare processes.

Following the presentation given by our first speaker, we'll take a few moments to run a live poll. At which point, we'll invite the audience to take part.

At the end of all the presentations, we'll open the floor for a Q&A.

With that, I'd like to invite our first guest speaker, Mr. John Walsh from HealthNow to start his presentation.

John Walsh: Hello, everybody.

So I'd like to walk through basically the background around HealthNow as a company, where we were, what kinds of challenges we faced, and some of the solutions and technologies that we brought to bear to overcome some of those challenges. And we'll walk through a bit about some of our actual approaches and how we work with the business users to get a solution that we think is really very flexible and dynamic solution and allowed us to be a lot more competitive in the future going forward.

So if I go to a little bit of background around HealthNow, we're a Blue Cross Blue Shield Company operating in Upstate New York. We are Blue Cross Blue Shield in Western New York and we're Blue Shield in Northeastern New York.

We have about $2.2 billion in premiums. We have about 680,000 insured members and we have about 2,500 employees. We are currently the market share leader in a very competitive market. There are a lot of regional players coming into the markets and we have a fairly stagnant population growth. So as we progress, what we're trying to do is reduce our administrative costs for managing that population growth. And so really, obviously, automating a lot of our existing manual processes is a key driver in lowering those administrative costs.

So some of the things we face from a key challenges perspective around our line of business, again, administrative costs due to manual processes are contributing to increasing premiums year-after-year. Timeliness is a key factor in responding to opportunities and competitive threats. We're very highly regulated in the New York state region. So there are significant requirements and mandates around meeting those regulatory requirements. And diversification is key to growth

From an information technology perspective, we had a large legacy system infrastructure. Everything is very tightly coupled because of that. And that really limits our business flexibility. It's very hard for us to take our different business functions and compose new business processes out of those, or do things in a different way.

We have a lot of the constraints around our IT resources. We are very heavily constrained from, again, meeting our mandates from an association or state or federal regulatory perspective. We've been traditionally spending a lot of our time in keeping the lights on or trying to meet trying to meet our regulatory requirements rather than focusing innovation.

Also we don't code fast enough to keep up with all the different changes that are going on from a healthcare reform perspective, from a new product offering perspective. There really are a lot of things that are going on and we just can't code fast enough to keep up with all of those things.

It takes too long for us to onboard external resources due to the system complexity trying to keep documentation in place, trying to educate people that we bring on as contracting resources or consultants throughout our current systems and the changes we want them to make. It takes a long time to bring that up and bring them up-to-speed. And that costs us time and money obviously as well.

And more and more when we continue to integrate with more external systems, as we diversify and as we bring on new trading partners, we need to have more standardized interfaces that describe the types of functionality that we perform. And we need to be able to provide those to our trading partners and business partners in a way that they can leverage those and do business with us easily.

Some more background from an IT perspective we're very highly dependent on packaged systems for core business functions. We have limited flexibility in our IT environment again because things are very tightly coupled. We've been very traditionally batch claims processing focused. And a lot of the knowledge around our systems is limited to the same few key SMEs, the subject matter experts. So everyone is going through the same five or six people over and over and over again to understand how something works.

And about 12 months ago, we established Enterprise Architecture team to start to break down these issues and understand how we could tackle them and approach them differently.

Some of the goals of our future direction 12 months ago were moving towards what we call a business-oriented architecture. So we're laying things out in terms of what does the business process look like, what are the business rules, the business policies really are, rather than focusing on purely technology-driven architecture.

We wanted something that provided a lot of agility. We wanted something that really increased the maintainability of the system overall. We wanted something that was scalable. We wanted something -- we wanted a platform that enforced consistency and a solution design approach and delivery. And we wanted something that provided an ability to audit the work that was going through the system. We wanted to know who is touching what work, what decisions were, where we expect transactions as they went through our systems.

And we follow -- our motto was thinking strategically and executing tactically. And what that really means for us was as we were building out our system platform, we leveraged multiple different projects to put that infrastructure in place. So we had a long-term vision of what we wanted from a capability perspective. But we put those pieces in place bit by bit. So it wasn't a Big Bang effort for us.

The solution we've now put was we wanted to add decision capabilities with the Business Rules Management System and allocate tasks and disseminate tasks with the Business Process Management.

So what that meant for us was we wanted to be able to have a consistent business process around our enrolment processes, but be able to handle regulatory changes or line of business changes through these rules engines. We wanted to consistently enforce our enrollment policies and guidelines across the processes and channels. We wanted to be able to trigger notifications when there was an exception or breakdown in that process. We wanted auditability throughout the entire process. So we wanted again to know what happened to this enrollment as it moves through the system, who touched it, what decisions were made around it.

And we want to make it easy for business and IT users to understand what we're going through with the system and to use the system.

So my core enterprise architecture strategy, we've been working and developing a holistic reference architecture around the following. So when I say reference architecture, for us this encompasses our information architecture, our application architecture, our technology architecture and our business architecture. It's really trying to keep all of those in alignment.

So we implemented three major initiatives. One was a Service Oriented Architecture for putting investment into a SOA architecture and infrastructure that allows us to move towards that type of infrastructure where things are very loosely coupled and that we can increase reuse throughout services.

Our service functions are aligned with business activities. And that means we can take those and compose them into new business processes.

Again, moving towards the Business Process Management allows us to have an end-to-end -- have our processes under management from beginning to end. And it leverages our SOA and Information Management infrastructure.

And we have been developing our information management, what we call an Information Management Agenda. And really what that means is that we take information and treat it as a key a business asset, so things like our member data, our product data, our provider data, really putting that in a very well thought-out information architecture where the data is planned, standardized, managed consistently, and we have governance around that. So we've been putting together an architecture that really helps enforce all of that.

Some of the key technologies that we put in place- -- again we've been adding to these for the last several years at this stage. From a UI perspective, a user interface perspective, we've been investing in WebSphere Portal. And this is really the underpinnings of all our internal portal environment and our external portal environment. So for our members, our providers, our groups, our employee groups and our brokers, WebSphere Portal is the underpinning technology that allows us to  expose all this functionality to those folks.

DataPower is our services gateway environment. So it really secures all our web services and make sure that we can securely expose those to external people as well as internal applications.

Message Broker is our transformation routing and integration environments where we take existing business application systems and expose those out via messaging or web service endpoints.

Process Server is our process management orchestration and human workflow tool. This is what ties all of our different services together in a process flow, either an automated process flow or a human-oriented process flow.

ILOG JRules is our business rules environment where we can encapsulate our business policies as individual rules and tie them together within a ruleflow. And then that can be invoked as part of the process.

Cognos is our business intelligence environment where we do our reporting and analytics.

InfoSphere MDM Server is the technology we've invested in to manage our master data such as member, provider, broker, those kind of things.

And then Quality Stage provides the data quality [address] trending, standardization, matching components that we want to apply to our data that moves through this solution.

The reason we selected these technologies, we really wanted to -- what we really want to do was understand from a reference architecture perspective what capabilities we needed in place to provide a mature platform for addressing these types of needs over and over and over again. We didn't want to just provide a solution that met the needs of an enrollment platform. We wanted to be able to put a platform in place that allows us resolve enrollment and other types of business needs over and over again consistently.

So we look at those capabilities that are needed from -- for a holistic application architecture perspective. And we were able to then say, okay, these are things we need to have. So we also look at what existing technologies we had in-house. We were already a large WebSphere and MQ customer. So we wanted to really choose technologies that would complement our existing investment from a skills, technology and infrastructure perspective.

We wanted to consolidate our platforms to make them easier to administer. We wanted to take technologies that had been proven out in our Blue Plans and use them here. And we also get very, very strong vendor support from IBM. That's been our prior experience and it continues to be our experience today. So that's very, very important to us.

Obviously having very strong documentation both from a manual perspective and also online tutorials, and also from a training perspective, those are all key things. A lot of these technologies and solutions are complex, and they require an investment in bringing your stuff up to a skill level where they can continue to maintain those after your integration partners have moved on.

A lot of the solutions have also started to address a key gap for us which is getting to maintain documentation after a developer has moved on from that solution. So a lot of this -- in a lot of these technologies, the actual tools are self-documenting in that you can see a graphical representation of what the system is doing. And that's been a -- that's really the -- we see that as really key differentiator for us as we start to do more and more complex system, trying to keep those that documentation up to snuff and up-to-date. We've been fighting a losing battle around that for many years.

So as we started to conceptualize how we would establish an action plan around bringing these types of solutions into play, what we had to do was step back and redo the organization. We had to define new roles and responsibilities. We had an internal call to action within IT which was really saying we need to be a different culture. We need to really be focused on meeting the challenges and needs of the business. And we need to be responsive. We need to have -- we need to switch from a cultural, "No, that's too expensive" or "We can't do that" to "Well, let's take that off and let's figure out how we can do that." By partnering with IBM and select business partners, we've been able to create a foundation for doing that, for having the expertise behind us to be able to meet those kinds of challenges.

We've had to establish some new project disciplines, creating a solution architecture practice where we now assign solution architects who are familiar with the reference architecture and can bring that reference architecture to life, to the solution design for all applications. And they really

are the forefront of making sure that our enterprise architecture concepts and goals and guidelines are really encapsulated in our new solution designs.

And then establishing enterprise platform for solution development based on SOA, BPM and IM. Again, this is really making sure that we have that reference architecture and the capability is addressed through that reference architecture so that we can deliver a strong application platform every time we try to address the needs of the business.

Partnering with the IBM and business partners was, again, a very key thing for us. Some of the early things that we did, we went through a lot of proof of technology sessions to help enable our folks internally to understand the technologies we were bringing in. These would be -- some of the things we looked at were Business Modeler and Monitor, Process Server, and I know we also looked at WebSphere Service Registry and Repository also.

We've been going through a series of training planning sessions where we've looked at formal training where we do Lunch & Learn-type sessions. We're looking at how we get our folks certified. And we're also looking at the different types of products and how they line up on a roadmap for training.

We've been engaged with certain system integrator partners on getting certain types of implementation assistance. We've engaged both IBM Lab Services and external business partners to help get us off the ground so we can hit the ground running while we're bringing our folks up-to-speed internally. And Electronic Enrollment was the first implementation of that.

So from a project perspective, when we look at our enrollment, we have really three major channels for enrollment. We have paper, we have online and we have file-based. And file-based was our initial focus for this project. We are currently in the middle of implementing the paper-based enrollment solution.

So in today's world, only a small percentage of our members used online enrollment. We have about 50 employer groups who send us electronic files. And the rest was paper which was keyed manually. Our existing file-based solution was cumbersome, was error-prone and it didn't support all of the types of eligibility updates that we wanted to apply. So we decided to engineer a solution that would have a consistent approach to all -- to enrollment coming from all three channels.

Our basic enrollment process flow for file-based enrollment is something very similar to this. It was -- we have a Load and Validate stage where we take the files and we load them into our repository where we validate the transactions. We have a process which requests work from the repository. And then we have a global standard process for processing each enrollment transaction.

The key thing about this is that process enrollment transaction process is completely reusable across all channels. So the only difference we have across the other channels is we have upfront processes that replace the Load and Validate and Get-Work portions.

A process enrollment transaction flow from a BPM perspective looks fairly similar to this where we receive an enrollment, we get reference data such as do we already know about this member, do they already have existing coverage with us, what were the plan details of the plan that they've selected, what coverage goes along with that, what's our -- does our PCP that they have selected, are they currently enrolling new members, are they currently eligible, are they in network. And then we apply enrollment rules to that transaction to calculate coverage and determine eligibility for the plan selection that the member has made.

And based on whether or not they're eligible, we may either pend the enrollment and send it to an -- enrollment analyst for further followup, or we would submit it back to our core claims processing system where that member is installed and that we can pay claims for that member.

So for you -- again, you'd see the bottom flow is where we look at -- we're applying validation rules, we're applying the coverage calculation rules, and we're applying the eligibility rules. And all that is happening in our ILOG Rules engine.

So here's an example of a business policy and rule. So -- now this isn't actually a HealthNow rule just to make it clear, but this is for -- this would be similar to the kind of things that we would have in our system.

So in this case you can see it's a very English and tactical type rule where there's a, typically a business policy behind this that would say something like if -- only HMO plans in California -- oh, sorry. The HMO California Plan is only available for residents of California. The if-statement up there is enforcing that basically. And if the transaction doesn't meet that condition, then we can add an error to that transaction, which will be then routed to an enrollment processor where they will take a look at that and potentially contact the member to understand what the real need is.

Here's an overview -- it's actually a little hard to see on this slide -- of our entire enrollment process at a high level. We basically have a repository that stores the enrollment transactions. And then the entire overall process is coordinated and orchestrated by WebSphere Process Server. And WebSphere Process Server interacts with both Message Broker and ILOG to retrieve the information needed to support the processing of the transaction and then applying the coverage calculation and eligibility determination rules in ILOG. And then based on the results of those, it's either sending the transaction to our core claims system or pending it for further review by an analyst.

Some of the benefits of our Business Process Management and Rules Approach, we're looking for basically significant reduction in operational costs and errors. So as we automate a lot of these processes, especially when we get into the automation of our paper OCRing and processing through the system, we should be able to see a significant reduction in administrative cost and overhead.

Also, using the Rules Approach and Business Process Management Approach, we can clearly see what the activities are from a business perspective and clearly understand what policies are being applied to those transactions as they move through our system.

All the transactions that we process are measurable and auditable. We have greater transparency. So we can see exactly how long it's taking to process each transaction. We can understand what types of transactions are causing errors or pends, and then we can remediate those from a process perspective or from a rules perspective.

Also as we bring on new resources who don't have that long-term domain knowledge, they can understand the business policy and rules because they're clearly documented in English syntax. So then we're not as reliant on programmers or developers who have that domain knowledge, to help us understand what are we actually doing in these systems.

One of the other key things is that we see that there's an ability to introduce new behaviors into a system in days rather than weeks or months. This is going to be especially important for us as we understand more and more about the effects of healthcare reform.

Lastly, there's less reliance on IT to introduce changes. So if the business is able to take the existing data and apply new rules to it, they should be able to do that without major IT intervention. And there's pros and cons about that, you need good communication. We still see this as being a code change. So we still need to certainly go through a governance process and approval and still need to go through a formal promotion process and testing process. However, we can definitely shrink the times to do that. It's not like making a regular IT code change.

So from a results perspective, what we've proven is that we can make changes faster so we should be able to increase speed to market. We have far better visibility into the rules across the enrollment process. So we have a better understanding and better clarity about what actually is happening there. And we have better consistency being enforced.

And in the prior world, we have different enrollment systems applying different rules and different conditions. Now everything should be going through one enrollment process and a consistent set of enrollment rules.

We now have better and increased collaboration between the business and IT. So we  we have a good solid working relationship between our IT folks who work in this enrollment process and the business SMEs who basically drove the rules and the understanding of what should be done to the transactions as they went through our system.

And we expect to see productivity gains with fewer people and man hours spent to create, test and deploy rules. We're still working through some kinks on this, but overall, we have really shrunk down the time it takes to develop, create and deploy those rules.

And what we expect to see in the future is that there'll be fewer business silos, that we should have a consistent business process across all lines of business and that we can use the business rules engine to accommodate for policy differences or regulatory differences across those lines of business.

We expect to see a significant reduction in the enrollment time and administrative costs. So we should be able to onboard members and groups in far smaller time.

We expect to see an increase in the first-pass rate from an enrollment perspective up to about 90%. And we expect to have a reduced total cost of ownership by expanding these Business Process Management and Business Rules throughout the rest of our processes within healthcare.

So some of the lessons learned that we have, the shift to Business Process Management, Service-Oriented Architecture, Information Management and all those other things, is a very major undertaking. It needs to be well-thought out. It needs to socialize the concepts early and often within the organization to build understanding, to build appreciation for the level of effort involved.

Satisfying the business objective is the end game. It is not about putting tools, new technology toys in place. This is really about delivering a platform that meets business needs from an agility perspective, a consistency perspective, and long-term and cost-effective perspectives.

One of the key things for us was trying not to put this all in at once, so we avoid boiling the ocean. We leverage very tactical projects to install the foundation tools and build the skills up. Again this goes back to thinking strategically but executing tactically.

We have to be very careful not to over-engineer the solutions. So a lot of these technologies you can really take advantage of some great features. However, it's very easy to get lost in the features and lose focus on the actual end game which is delivering value to the business. And that needs to be early and often.

We want to leverage thought leaders to engage with the business leadership and really promote innovation. So again from -- one of the things we've learned is we had some great ideas about what we wanted to do, but there are other folks out there who have even better ideas or who have been through it a few times, so they really understand the possibilities. So it's often a great to get those folks partnered up with your business sponsors and business leadership to really help them understand what other folks are doing with this in the industry.

Another key thing for us was when something isn't working fail fast, adjust and move on. There's -- the worst thing you can keep doing is trying to make a bad design work. So you really need to engage with your business -- or engage with your implementation partners to look at your designs early and make sure that you really are thinking through everything.

And then marketing your successes and learning from your failures. You know, it's key to promote the successes of this with the business to make sure they understand that this is a viable technology platform that it can meet their needs. And then when you have had failures, to really understand and take away the lessons learned from those.

So, with that, I think we've reached the poll questions.

Sandra, I'm not sure if we're turning it over to you or not then at this stage.

So from a poll question, what challenges are you facing with your organization?

Sandra Yin: I'm sorry. We're on mute.

Maneeza Malik: --Sandra, we're on the poll.

John Walsh: Okay.

Sandra Yin: Oh, dear. This is Sandra.

And now we have our first audience poll. Please weigh in with your answers using the Submit button on your screen. And of course, the question as John said was, "what challenges are you facing within your organization?"

And I'm kind of curious to see if anyone answers all of the above or none of the above. But I guess we'll see soon enough.

Wow. These are pretty interesting findings. It looks like 42.8% said all of the above. Next would be the siloed and disjointed processes at 23.8%. 19% found Business Rules are hard coded or decentralized. 9.5% said none of the above, so they're the lucky ones. And 4.7% say they confront a lack of transparency and flexibility. So these were rather illuminating findings.

Our next speaker will be Ed Castine from Leveraging Technology.

Ed Castine: Thank you, Sandra. And thanks for the opportunity to present today.

So Leveraging Technology is a small IT consulting firm in Rochester, New York, and we had a pleasure of working with HealthNow and living through some of the things that John outlined earlier.

Reflecting a little bit more broadly in the healthcare industry, we see that there are some key disruptive trends that are taking place. Things like regulations, competitive pressures, cost pressures, and also game-changing technologies, are creating a new frontier of opportunities or a new series of threats for companies that don't have the agility to meet the challenges. So I think many, as we saw in the poll results, are facing the challenge of how can we respond faster to take advantage of these things.

We work with several different companies with decision management technologies to help them achieve some of those agility goals that they have in mind. Some things like quoting and profitability managements, electronic enrollment as John alluded to, also customer interaction management, presenting the right cross-sells and up-sells to your customers, as well as rules-driven labor management.

And what we find is that the decision management tools that put the power in the hands of the business are extremely important. But also, the architecture that helps connect those decision

management tools to your data sources and your business partners internally or externally, your supporting processes, as well as analytics, those connections in the network of capabilities are just as important as the decision management technologies such as Business Rules Management and optimization capabilities.

We find also that traditional BPM initiatives will not be agile enough to keep up with the out-performers. So traditional BPM technologies and also just traditional IT projects are characterized by lengthy IT cycles that are often measured in three to six months or sometimes even 12- to 18-month cycles where there's a lot of attention put into design, there's a lot of work and effort put into development and testing. And these things take time. Oftentimes, the business is not happy with the amount of time that it takes. And that's the problem that some decision management technologies can help address.

As John alluded to, there are a lot of things that go into making this successful. But the goal is to be able to implement change faster and to depend less on the IT resources that are often constrained with running the business capabilities that they have today.

One of the sayings that I like to use is, "The brakes are what enable the car to go faster." What I mean by that is the checks and balances that you can build into your decision management capabilities to help you do regression testing quickly and to help validate that the changes you're making are the right changes, that's what helps you implement those changes faster. So the IT development cycle can shrink from months to even weeks. That's going to be a powerful game-changing capability.

We also find that organizational issues can stand in the way of capturing the business value. So there's a lot of organizational issues depicted here. Whether that relates to an unclear strategy from the top or lack of skills to implement that strategy, there're a lot of different factors that are, I would agree, organizational factors that can stand in the way of capturing the business value.

And then there are some key gaps that you have to think about and think about avoiding in order to really get to that value that you want. And I've articulated two gaps here. One is the IT Excellence Gap. And that's the IT organization's ability to grasp the technical capabilities that are at their disposal and put them into effect. And that's a gap that can be shrunk with effective planning.

And then the other gap is the effectiveness of engaging the line of business, the Line of Business Engagement Gap. So these are things I'm going to explain a little bit further on the subsequent slides.

When it comes to minding the IT excellence gaps, it's really architects that have the responsibility for leading the line of business and the overall IT organization into a more effective mode of working. And I'm a big fan of John Walsh and his approach towards tackling this and engaging effectively with both IT and the line of business.

And as you can see depicted here, there's a variety of different types of skills that go into an effective application development project. These are not -- maybe not the same skills that you

needed over the past 10 years in terms of implementing packaged applications. When you're doing something in a more modular approach like HealthNow is doing, there's a lot of different skill sets that need to come together and work together. And you have to be able to approach the business effectively to gather requirements effectively.

Secondly, when it comes to engaging with the line of business, there's a lot of different places where that idea of the architect's role gets applied. And the color-coding here is meant to indicate that that business conversation has to probably happened in a lot of different areas of the business that are probably siloed, that are probably making decisions on their own about they're going to approach challenges.

And this is often -- selecting different packaged solutions to approach those challenges. And maybe there's a better way. And if the architects can get out of in front of it, and if the IT executives can help them get out of in front of it, the way to do that is to engage the line of business more effectively, work according to the priorities of the line of business, and then establish the controls that relate to the planning and the governance that'll help make sure that you don't skip some of the important architecture discussions that need to happen when you're approaching this type of engagements.

That's where we can come in to help. We're an IT consulting firm that can help you address some of these things, not only on the screwing in of your systems and the adoption of new technologies but also in helping to engage the line of business. And we've broken out a few things that we've chunked into our offerings that you can read more about at www.leveragingtechnology.com.

So, Sandra, I think…

Sandra Yin: Okay. Thanks so much, Ed.

Our next speaker will be Maneeza Malik who is Industry Practice Leader for the Healthcare & Life Sciences Group at IBM.

Maneeza Malik: Thank you, Sandra.

As mentioned by both Ed and John, business rules can be found in various applications and processes. You saw the examples shared with you today around member enrollment. But if you look at the healthcare industries, it is essentially governed by policies, procedures and regulations behind which reside business decisions or business rules.

What you see on this cloud is essentially an extensive list of application types where decisions exist. So for example, if we move to claims processing, a BRMS is used to validate incoming claims, apply various HIPAA or compliance rules, automate and determine exceptions around pend management, determine what can be reimbursed on a claim and at what amount, score incoming claims based on multiple attributes in the case of claim fraud for instance and so forth.

If we switch to a provider-type application such as patient monitoring or drug utilization, BRMS is used to determine which drugs to administer and what procedures to follow when a patient's health condition is changing or when to trigger an alert or notification.

So essentially, these business decisions that reside in healthcare processes are constantly changing their dynamic. And WebSphere Outlook software is used to more effectively deal with the influx of information and change management through automation and adding decision capabilities to these various types of applications and processes.

Moving onto the next slide, across the healthcare industry whether we are talking about payers, providers or various medical institutions, there are some common issues or challenges we see across the board. The poll that we ran some of those challenges were mentioned there, and that's typically what we see in hospitals and health insurance companies, lots of siloed and disjointed processes, legacy systems or packaged applications where business decisions or business rules are either hard-coded or decentralized essentially residing in multiople locations, from databases to Excel spreadsheets, to manuals, to even being enforced based on the skill sets and expertise of the various individuals you may have in your organization, whether we're talking about underwriters or adjusters or compliance officers.

So in this type of environment where rules are essentially decentralized or hard coded, on average, it takes anywhere from one to three months to implement a rule change. And any time we're talking about supporting a new initiative, whether it's a regulatory initiative or launching a new service, product or price, that change cycle typically jumps from five months to, we have seen, over a year. And in this type of environment, there's no visibility in how these business decisions are being enforced or changing, hence, adding to the overall risk factor whether we're talking about an operational type scenario, an operational efficiency type scenario or patient safety in the case of medical practice.

So what a BRMS essentially allows you to do is take the decision logic or business decisions which reside in code or in multiple locations to be extracted and managed separately from core application code so that it can be easily understood, maintained and reused across your organization.

And by externalizing rules from application codes, business experts can define and manage decision logic, reducing the amount of time and effort required to update decision logic and production systems and increasing the organization's ability to respond to changes in the business environment.

Now the core components of a BRMS include centralized rule repository where all rules are maintained. And this ensures greater efficiency and consistency in how rules are enforced throughout the process regardless of where the transaction is coming in from. And there are advanced rule management features for both business and IT users from permission management, who has access to what subset of rules and what can they do with those rules, to history management, reporting, versioning, to testing and simulation tools including the ability to perform what-if scenarios. And to runtime engines allowing production systems to access and execute decision logic managed within the BRMS.

When you talk about a BRMS, you have to think about an entire rule management platform providing the right tools for each user involved. The WebSphere ILOG BRMS is composed of three environments -- the development one dedicated to application developers, rule modelers and technical business analysts, the line of business environment dedicated to domain experts, having a less technical profile. It could be a policy manager. If it's a compliance reporting type application, there may be some involvement from a compliance officer as an example. If it's -- we're talking about risk management, rating or pricing, t may be an actuary and essentially a business analysts that are working with these different line of business individuals, as well as a production or execution environment where all the rules will be deployed and where their execution will be centralized and monitor.

Each of the Business Rule Management users has specific needs and jobs to accomplish. The ILOG Business Rule Management System essentially addresses each of them, providing the right tool to the right user. And all of these environments will allow a perfect synchronized and collaborative environment, allowing the organization to fully control and manage the entire run -- rule lifecycle.

On the audit trail front, which is very important, the audit trails include the ability to visually compare differences between ruleset versions, as outlined in this snapshot, as well as keep track of tasks executed, rule versions for individual rules, which rules are fired, when and how often, which rules came into effect or expired, essentially a comprehensive audit trail of rules and decisions rendered enabling healthcare companies to prove compliance to internal guidelines and various regulations.

On the impact analysis front, you can perform impact analysis or what-if scenarios to see the impact of a rule change or get a visual depiction of which rules were executed in the decisions rendered at a granular level. In this particular case, ILOG BRMS essentially supports both static impact analysis wherein rule queries identify rules impacted by a proposed change, and runtime impact analysis wherein rule execution results can be compared to baseline or expected results.

So when do you -- when should you consider a Business Rule Management System? When is BRMS a good fit? When there is a drive essentially towards delivering greater transparency, speed and agility from a business standpoint, whether we're talking about an application which touches the patient or physician or an operational process in the case of claims, underwriting or member enrollment, these are all different types of processes where there is typically a greater need for transparency, speed and agility.

When business users may require greater ownership of the rules, whether it's in the form of audit trails or ownership in terms of being actually able to create, test and maintain business rules based on role and responsibility even if IT is pushing those rules into production. And again, these business users can be anyone from a business analyst working in tandem with pure line of business individuals to perhaps an actuary as an example.

Finally, a BRMS is beneficial if you're thinking of modernizing legacy applications or enhancing the functionality of an existing system or process, allowing healthcare organizations to take a more phased or incremental approach to implementing a BRMS.

WebSphere ILOG software, just to give you a summary of what we're doing in the healthcare industry, WebSphere ILOG software is used by many of the leading health insurance companies, hospitals, various medical research institutions, as well as pharmaceutical and life sciences companies worldwide. We have a proven track record of delivering ROI. And the benefits range anywhere from speed to market gains of over 50%, to productivity gains and cost savings of over 30%, as well as comprehensive audit trails as outlined earlier.

And for more information, I would encourage you to visit our website, where you'll find use cases, white papers, as well as register for upcoming webcasts and listen to some recorded events that we have online where you will get to hear various IBM experts as well as customers and partners that we work with in various segments of the healthcare industry.

And with that, Sandra, over to you.

Sandra Yin: Okay. Thanks, Maneeza.

Now let's move onto the audience Q&A. We have lots of great questions, and we'll try to get to as many as possible.

Let's see. Someone actually is talking about how personal data for thousands of patients has been leaked online. And the question here is "what is at the root of such burgeoning problems in this IT-driven world?"

Hello?

Maneeza Malik: Sorry, Sandra. Hi. This is Maneeza.

I think this is a question perhaps we'll address offline. It's referring to a specific article that appeared in the New York Times. So we'll take that one after the call.

Sandra Yin: OK, sounds good.

Moving on. Essentially, what makes an application a good fit for BPM versus BRMS?

Maneeza Malik: Ed, would you like to take a crack at that and then I'll jump in?

Ed Castine: Yes, I'll take a crack at that.

I think one of the things that lends itself to a BRMS is where the need to change quickly is important. So changing your enrollment policies quickly is something that drives the need for a BRMS solution.

It probably doesn't give you a reason not to do BPM, but the opportunity to change more quickly is really enabled by Business Rules Management System. And I would say it's a core component.

Sandra Yin: Okay. Moving right along, based on your experience, is it predominantly IT or business users that create, test and maintain rules? What is that collaboration like?

Maneeza Malik: I can take a stab at that and then I'll invite Ed and John to jump in.

You know, what we've -- it really depends on the corporate culture. We have seen in certain companies where business users are actively involved from the onset, which is really the preferred path. There's a very tight collaboration between business and IT users. And very early on in the project, even at the development stage, business users, business analysts are actively involved in creating, testing and maintaining business rules.

There are some examples that I can think of where 100% of the business rules -- and these are rules that pertain to, for instance, eligibility, underwriting, claims -- these rules are maintained by the business users, and IT is essentially pushing those rules out into production.

And then there are other examples where IT is still creating, maintaining and testing the rules. And at some point, perhaps closer to the deployment of the project, business users are involved where rules are pushed out in the hands of business users.

But it's -- it really is a mixed bag and it depends on the corporate culture.

Sandra Yin: Great. Thanks, Maneeza.

Maneeza Malik: So, Ed and John, if you'd like to add to that, please go ahead.

John Walsh: Yes. So this is John.

I think our experience has been pretty similar to what Maneeza has had. We have -- the business users, they define the policies that are the backbone of what rules need to get implemented. And then there's a very close collaboration to identify what are the different data points that those rules will act on.

So -- and in enrollment scenario, you have member information, you have provider information, you have benefit plan information. So IT needs to really work with the business to understand what are all the different attributes that the rules are going to impact. IT needs to create a model that represents that data and load that into the rules development environment. And there's a really close collaboration between business users and IT to get the rules to a stage where they're now positioned to be maintained by the business going forward.

So I think our perspective has been it's a very close collaboration to get the rules defined. And once they have been defined, in a lot of cases, the business can manage those themselves going forward. And -- but again, I think we feel very strongly that there's definitely a good solid

governance process needed where someone has accountability on both the IT and the business side for any change to the rules that no rules get promoted into a production scenario until they have been vetted and signed off by both sides.

Sandra Yin: Great.

Ed Castine: Yes.

Sandra Yin: Oh.

Ed Castine: I was going to add why it's so easy it seems for IT to make just an IT project out of it sometimes.

John Walsh: Right.

Ed Castine: And I've seen that where the IT folks can get their hands on the technology and get something to work, and then go live with it and then think, well, now we're going to turn it over to the business to start letting them manage some things. And what they realize at that point is they've failed to speak in the business terms and use the right structure for the business object model, and it becomes a re-implementation. And I've seen a few of those. It's so easy to make that mistake.

So taking the steps that John outlined is very, very important not to skip those things.

Sandra Yin: Great. Thanks, Ed.

For our next question, "how many people were involved in both the BRMS and BPM side of the project? And what were their roles? For instance, are we talking about two just redevelopers or a couple of business analysts?"

John Walsh: Yes. So this is John. I can speak about what our team structure was like.

We had three business SMEs involved. So the business SMEs were operational managers, people who understood the day-to-day activities very well from an enrollment perspective but had a higher understanding of well, here's what we're trying to go strategically. So they were able to conceptualize here's what the policy is from a business perspective, this is what they would look like from a rules perspective. And -- but here's -- we want to make sure that we're not just thinking about things the way we currently do things, that we're really being more forward-thinking.

And so we had three really great partners from that perspective. Obviously, I was involved as our enterprise architect. And we had a solution architect who also ran the development team. And he was actually from Ed's company, Leveraging Technology. We had -- we engaged IBM Lab Services, because this is our pilot implementation, to help us vet out our overall application architecture and to make sure that we were doing some things right, off the bat. And I would strongly recommend that, actually, that I think you really need to have someone who is a real

expert on your first implementation. That can really help avoid some headaches right upfront. And I think it's something that I would really strongly recommend to anybody going down this path.

We also engaged an experienced ILOG developer while we were trying to source and hire some ILOG developers internally.

We had an IT analyst who was not a domain expert. So she didn't have the business knowledge, but she had very good facilitation skills, documentation skills, use case analysis, requirement analysis, all that kind of thing.

We had two process modelers. So these are folks who went through and mapped out the entire business from a current state perspective and a future state perspective.

We had two BPM developers. So these are the folks who have created the process flows that run in Process Server, that orchestrates and ties all these activities together.

And then we had a couple of integration developers who were responsible for writing the services that went and retrieved the information necessary to feed into the rules engine. Then also, once that information came back from the rules engine, they had the integration services send that to our claim system.

So it was a good sized team. But everybody worked together very well. And obviously, there were supporting functionalities like our project management folks. We have testers involved in this as well. That was another key area where if you can get folks from your business area to help define those test cases early, that really, really helps us.

Sandra Yin: Great. Well, this will be our final question. We have a lot of great questions today and couldn't get to them all. But we will be getting back to everyone who submitted personally after the webinar.

Before you leave, we'd like to ask you two more quick poll questions.

The first, HealthNow's preferred IBM partner is Leveraging Technology. Would you like to speak with Leveraging Technology regarding your enrollment or claims automation needs? And you can just press the button, choose Yes or No and then click on the Submit Answer.

And for our next one, the poll question is, are you a TriZetto customer? And again, same instructions.

And thank you again for attending this Fierce Live Webinar presented by IBM and submitting so many insightful questions.

This webinar has been recorded. And you will be able to access the recording within 24 hours using the same link in your Confirmation and Reminder e-mails.

We look forward to seeing you at future events.

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