

# Legacy Systems: Obstacle or Opportunity?

By Marek Jakubik

I know it is rather difficult to see how dealing with legacy technologies could be viewed as an opportunity. Aren't legacies, by definition, a bad thing? Aren't they our pain, our monkey, our albatross? The conventional thinking certainly reinforces this kind of view. Until recently, I thought so, too.

Then I had an epiphany of sorts. Two events conspired to give me a different perspective. The first took place over the last two months during a review of more than 15 different policy administration packages. The second moment happened while on the Old Continent, where I spent time at the largest Polish insurer, PZU, which is getting ready for privatization.

Poland is dealing with a number of legacies: social, political, economic. The full list can be quite long. The challenges appear overwhelming. Yet while talking to PZU's two dynamic leaders, CEO Cezary Stypulkowski and CIO Miroslaw Szturmowicz, they caught me off guard when they said: "Being where we are gives us a unique opportunity. From the technology standpoint, we are going to leapfrog straight into the 21st century." Upon reflection I realized, indeed, history offers PZU such a chance. Moreover, there are several known models of such leaps, for example, in telecommunications, where entire countries jumped from a state of telephone-less-ness to modern mobiles, skipping the underground-copper-wire phase entirely—and they did it in an amazingly short period of time.

Fine, you might say, but how on earth is this relevant to insurance companies in North America? This is where I have to take you back and describe what I found when reviewing the policy administration package market.

## **Are You Afraid of a Major Surgery?**

When we talk to insurance CEOs and CIOs about their systems' legacies, almost without exception, the discussion turns to their policy administration appli-

cations. No wonder. Historically speaking, policy admin systems arrived "at a computer near you" in the very first wave of insurance automation in the late '70s and the early '80s. And like that uncle who's still living in your house after a supposedly brief Thanksgiving visit, they still are well entrenched. They represent the oldest, largest, and usually least understood pieces of code in your data center.

Policy admin systems are complex, and they take a long time to build. Today, they serve you daily as the heart and soul (and lungs and kidneys, too) of your operations. Many CIOs find the prospect of transplanting so many "vital organs"—because that's what acquiring a new system amounts to—a truly daunting proposition. And it is. Any major surgery on a live body carries a risk. And so, as always, the two big questions are: Are the rewards worth such risk, and...

## **Can You Afford to Wait?**

The answer, as with many decisions of strategic importance, only partially depends on a quantitative analysis. Rather, you need to ask your gut and allow it to be guided by your business intuition tested vis-à-vis the key elements of your business strategy.

Since your policy admin applications are tied tightly to the way you operate today, their health, prowess, and flexibility directly influence your company's ability to affect its competitive position. The speed and effectiveness of implementing forward-looking business ideas always depend on your systems. Whether it's about mining market and customer data to improve profitability, expanding geographically, launching new products, introducing differentiated services, or benefiting from more efficient Internet-based distribution—they all depend on the capabilities of your underlying systems.

And so, the primary question is this: Does your

business need to change, and if so, how much and how fast? And since all of your competitors are asking themselves the same question,

how do you want to position yourself in the pack: Lead, be ready for a leap, or just watch and wait? If you happen to be in the last category, you might stop reading. None of the following will be useful. But if you do contemplate a major change and the speed of your systems does not match your intents, please read on.

### **Vendors' Market, 2005 A.D.**

Contrary to a popular belief, the insurance software industry did not fold up its tents during the difficult period following Y2K and the Internet boom. Neither did it spend that time in hibernation. Rather, most vendors pared down their strategies, downsized, and quietly focused on building a better mousetrap. The breadth and depth of the policy administration solutions today were a surprise to me.

So, what's new? In a word, a lot. Many aspects of the new policy admin packages have become almost standardized. Browser-based, thin-client user interfaces dominate. Customer-centric design is gaining momentum as is a multitiered design with a separate, interchangeable Web-based interface and platform independence. Most vendors offer integrated billing, and about every other vendor has an integrated claims solution that utilizes the same customer-centric model.

However, to see the really new and exciting stuff you have to "pop the hood." What you will find is many of the concepts the software industry had been innovating with in the '90s finally have made their way into these new products. In essence, the industry has made major progress toward modern application architectures and some toward full service-oriented architecture by incorporating the following elements into the design of new solutions:

- Flexible architectures
- Real-time business services
- Service componentization

Furthermore, most packages added a number of business productivity tools aimed at lowering costs and improving time to market. The most important include a duet:

- Configurators and rule engines
- Workflow management

Flexible architectures are based on comprehen-

sive data models (often a derivative of IBM's IAA) and supported by a set of design tools. They allow for complex business object and transaction configuration (product, customer, policy, risk, etc.) without any or with very limited programming or scripting. Most packages separate user interfaces from the other layers, which allows for delivery of the same policy administration functionality through a different set of user interfaces. And the true leaders are implementing device-independent interface layers that interchangeably support browser technology, telephony, mobile devices, etc.

Real-time business services (not necessarily in the form of service-oriented architecture) exist in some shape in almost all packages. They use a separate layer through which business services communicate, mostly in real time, often using an XML backbone, and are highly configurable. While the functionality varies from vendor to vendor, they typically use Web services frameworks, and most offer support for a limited set of ACORD standards (here, vendors have proceeded rather cautiously).

Components (sometimes referred to as insurance objects) partially deliver on the long-standing promise of the object-oriented architecture principles that called for assembling applications from Lego block-like pieces. Indeed, the software industry has been designing software using small objects for quite some time; however, building applications from large-grain business objects turned out to be a bigger challenge. Four years after stepping into the 21st century, we finally can see multiple examples of large-grain and midsize insurance objects (product, policy, customer, party, account, authorization, etc.) assembled into insurance applications. Incidentally, some vendors offer those objects on a stand-alone basis, while others built their policy admin solutions using a component-based approach.

Configuring products, underwriting rules, and rating all have undergone major improvements. In most packages, that functionality is data driven and highly configurable through a set of user interfaces that require much less technical (IT) involvement than either existing legacy applications or products from the '90s. Although ease of use, quality of presentation, and flow of logic vary greatly from product to product, these new capabilities undoubtedly are

major steps forward on the road to improved productivity and reduced time to market.

Workflow management has become a frequent feature of the new breed of policy admin packages. The scope varies significantly. Sometimes it simply covers a set of rudimentary functions (such as underwriting exception handling). More advanced solutions offer semi-sophisticated workflow management functionality that includes built-in diary subsystems.

There is no doubt the insurance industry vendors have made major progress. The vendors' own data suggests developing a modern policy admin system costs between \$40 million and \$70 million, which is about five times as much as claims and about 10 times as much as building a billing system. It is highly unlikely (shall we say, impossible?) any carrier company from the mid-tier ever can accomplish such a feat on its own. Conversely, by exploiting recent insurance software developments, carriers have an opportunity to jump from the computing Middle Ages to modern times.

### **Leapfrogging Formula**

Leapfrogging is not for the faint of heart. Decisions of this kind should be made only after serious consideration of the risks and returns. However, if you still are reading, chances are this briefing touched a competitive nerve in you. And so, I have a proposal for you:

- Get Ready: Take a really hard look at the market, and pick your winner (two months);
- Set: Build the strongest project team (the one you thought you couldn't afford), and develop a plan (two months); and...
- Go: Take a leap. Straight from the '70s into the 21st century. In two years, they may call you a hero.

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