



A CEO Perspective

The FINEOS Strategic View for Life,
Accident and Health Insurance Carriers
Core Systems of Differentiation to
deliver 360° Service in the Digital Age!



Over fifty years ago, on April 7, 1964, IBM launched the System/360 mainframe as a revolutionary new computer system with significant flexibility and business computing power. My own father worked as a COBOL developer on the IBM System/360 during the 1960s and he always rated IBM ("Big Blue," as he called them back then) and the System/360 very highly. He is now in his eighties

enjoying retirement, but he was surprised when I told him it was the 50th anniversary of the launch of this great workhorse by IBM.

April 7, 2014 marked the 50th anniversary of IBM's great business workhorse, the IBM System/360.



Over the past fifty years we have enjoyed incredible computer technology advances, bringing huge benefits to the way we live and work. However, a concerning issue for the insurance industry has to be the many core software systems in back-office environments that were originally designed and written for the IBM System/360 and subsequent mainframe generations. Granted, a lot of this software has been upgraded, ported, tested for Y2K, and rewritten. However, the point is that this legacy software lives on in one guise or another in insurers' core systems. It is often buried under layers and layers of front-end software, written and rewritten in more recent times but it is still there behind the scenes, cranking through millions of transactions and updating records on a daily, weekly, monthly, and annual basis.

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Mainframe core software systems grew in capability and complexity over the years with an evolving, demanding and ever-changing business landscape and, to the credit of guys like my dad and his generation, this software has stood the test of time and delivered for a period far longer than originally intended. A downside, of course, is that a lot of my dad's computer generation have retired and the number of mainframe software people in our workforce is in decline.

A recent study by insurance industry analyst firm, Celent, confirmed what we all know - that insurers are still relying on mainframe-based core software systems. This report states that insurers often talk about their primary system that was installed 20, 30, 40, and even close to 50 years ago! In the computing world, where the speed of technology doubles every 18 months, the thought of a software system originating from fifty years ago is fairly special, but also a bit daunting. Those of us who know and love the insurance software industry have come to appreciate this stark reality.

Mainframe based legacy core software systems in use today have taken hundreds of man years to design and develop. Since then, they have undergone many more man years of continuous investment in software enhancements and maintenance. In many cases their capital cost has been written off long ago in the books. However, the people who designed and built these systems are retired or moving closer to retirement so there is an obvious growing risk of obsolescence and failure. How many sets of insurance company accounts adequately highlight this problem and the

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related risk? Within the insurance IT community, this risk has generally been recognized since as far back as the Y2K period 20 years ago, but perhaps insurance carriers spent so much on Y2K compliance that they decided to extract more value from their legacy core systems by retaining them long after Y2K. Also, in many situations over the past 20 years, offshore outsource parties have taken responsibility for the physical maintenance of these legacy core systems – is it a case of “out of sight out of mind”?

Tom Scales, co-author of Celent’s mainframe report, *Mainframe-Based Core Insurance Systems – On the Road to Oblivion?*, and research director of its Americas life and health insurance practice, explains that insurers didn’t mean to let their systems get so old. “It’s just that the software was paid for

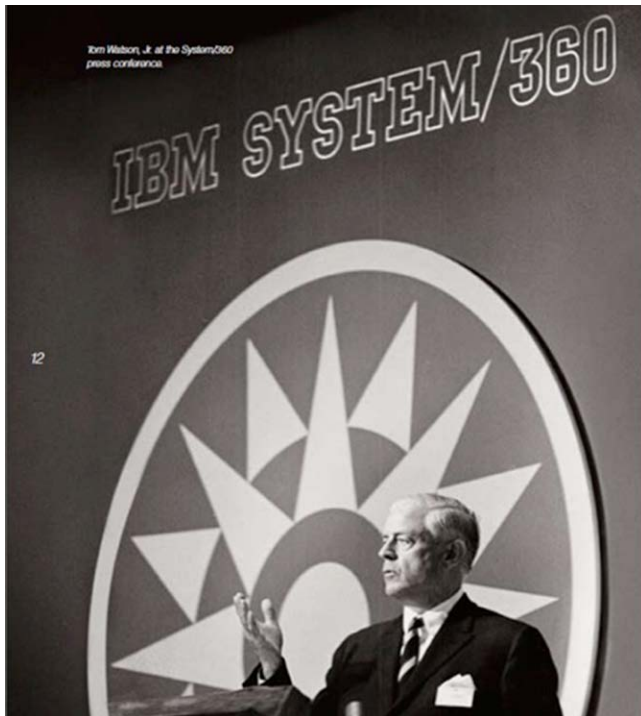
and running fine and there wasn’t a compelling reason to replace it. Their attention was focused instead on creating new products that could grow the business. It’s like a car you drive to work every day,” Scales says. “It’s just your commuting car, it’s not very exciting, but it runs, the maintenance is low and the gas mileage is good. Unless you really need one, why would you go out and buy a new car?”

Legacy core systems emerged in advance of Windows, workflow, case management, document management and the many recent technology advances we have witnessed in this modern digital age. The data structures in these ‘green screen’ systems are oriented towards achieving the bare minimum - the very basic tasks of computing, record storage, and update. To play on the car analogy that Tom Scales uses to make his point, we are really talking here about the difference between

a sixties Chevrolet Impala (or a Morris Minor in the UK) and a modern everyday family car. In the 1960s and 70s people built cars on assembly lines, but today robots build cars with very little human labor or skills required. We are talking light years here in computing terms!

Some of the mainframe core insurance software systems in existence today were originally developed by packaged software vendors, but many of these software “innovators of their time” either sold out or went out of business, leaving their customers’ IT departments to assume responsibility for ongoing customization and system maintenance in house. These early core insurance software vendors usually suffered from a lack of income for their software and services, leading to a drying up of research, development, and product innovation, and ultimately guaranteeing their demise and disappearance. Ongoing investment in research, product design, innovation, and development is the key to great software technology but this investment has been very scarce in the area of modern core software for Life, Accident and Health. The better funded R&D functions and mature product management practices of modern vendors keep the next generation of products moving forward in a way that minimizes cost of ownership for insurers while keeping them on an upgrade path for greater return on investment.

Scales makes the point that nine of the top ten Life and Health insurers in the US still rely on the mainframe for core system processing, as do many other insurers in the US and around the world, so there is a huge opportunity to be grasped by smart carriers who replace these legacy core systems with a new generation of core systems that are designed from the perspective of the people who use them, i.e. the people inside and the people outside the enterprise. As a core systems vendor for Life, Accident and Health, this is a challenge that motivates FINEOS and we want to work with forward-thinking people who understand this opportunity. We are helping our customers to make this journey to modern core systems in a way where we keep their



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customers’ interests as their top priority while they move away from their reliance on legacy core systems.

Before discussing the FINEOS core systems product suite for Life, Accident and Health and our approach to helping our customers move away from their reliance on outdated legacy core systems, it is worth taking a closer look at one of the significant consequences of keeping legacy core software systems in place over the past 20 or 30 years. Retaining these legacy systems in the back office has necessitated the continuous introduction, and indeed proliferation, of modern technology, user-friendly, front-end software systems for people-centric functions such as point of sale, agency, underwriting, enrollment, web self-service portals, etc. We have seen the introduction of enterprise productivity technologies such as workflow, imaging, document management, email, SMS, electronic signatures, MIS tools, analytics, data mining tools and many other technologies which live outside of the core systems but deliver very useful business value.

These more modern front-end software systems are usually integrated with the legacy core back-office systems. The tighter the level of integration achieved between the front-end and the legacy core systems, the more automation and straight-through processing that is possible. However, attaining tight integration between front-end and core legacy systems is expensive to achieve and that expense goes up in multiples in the longer term when you have to invest in continuously supporting and maintaining the integration code between these systems. The front-end systems tend to change more frequently than the back-end, but both undergo change, which very often means three points of software system change (the front-end, the back-end, and the integration) to implement a single business change. The total cost of ownership can become prohibitive leading to compromises in scope, limitations for the business, and an overall reduction in return on investment.

Furthermore, since the early part of this century we have witnessed the growth of front-end CRM and Master Data Management (Customer) systems to assist marketing, sales and, to an extent, front line customer service because many of the legacy core systems are policy rather than customer-centric. More and more, insurance companies must deal directly with their customers, and for nearly twenty years now they have strived to gain a ‘Single view of Customer’ or a ‘360 Degree Customer View’ across all of their channels and all core back office systems for all products, in order to provide improved customer service, track and understand new sales opportunities and also to try to identify possible threats to customer retention. Gaining a ‘360 Degree Customer View’ has not been easy – especially for the larger carriers. However, a substantial number of carriers have achieved or partially achieved this goal today and they are able to deal with people who buy their products and need their service in a reasonable way.

Group Life, Accident and Health carriers do not have a ‘360 Degree Customer View’ today as they have traditionally viewed the employers as their customers (or ‘clients’ as some carriers call them) and they only deal directly with their end-customers (the employees) when there is a claim. Employees had gone through the employer or agent for all other services in the past. However, with the trend towards voluntary-based insurance products and support to the employees on behalf of their clients (the employers), the clear



Silo'd Front Office / Back Office systems

The two pronged IT strategy of maintaining legacy core systems of record while also continually investing in new front end systems of engagement is becoming more and more difficult, expensive and an inefficient use of resources.

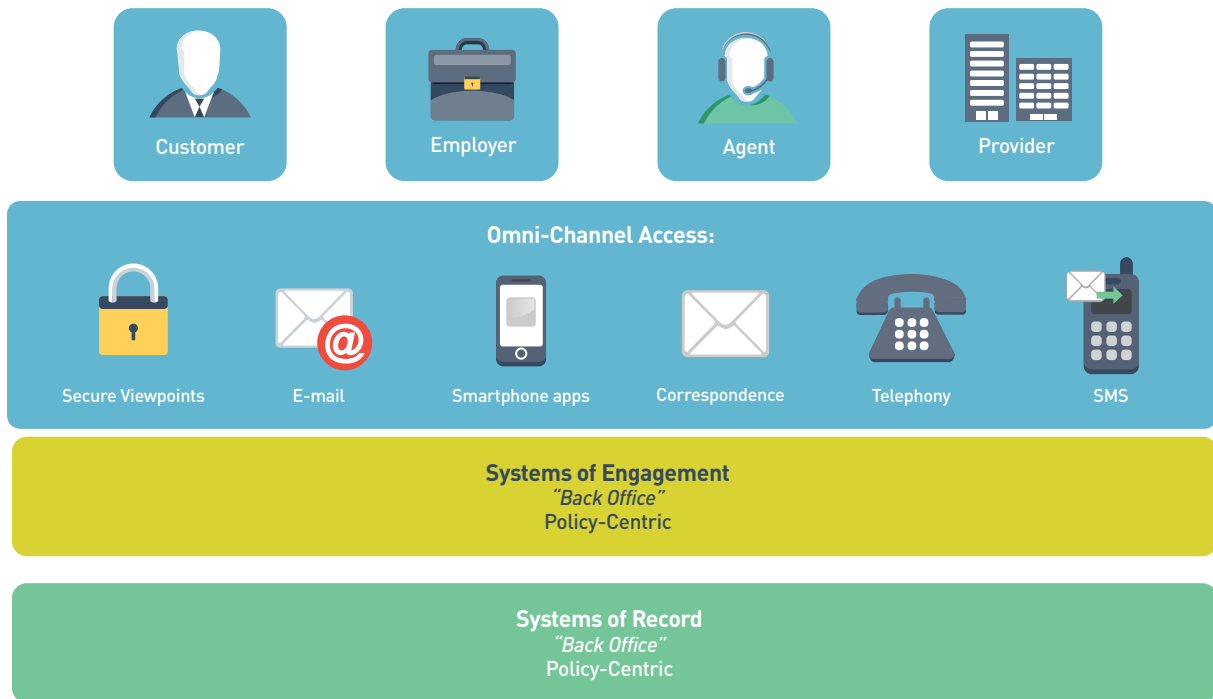
gap in the capability of these insurers is emerging - Group carriers need a 'Client and Customer 360 Degree View'!

The use of front-end modern technology in insurance to 'shield' users from the limitations of legacy core systems and to create a more slick and efficient user experience is growing rapidly in today's digital software era. Product management and UX design skills have become crucial to ensure software delivers a personalized, exceptional user experience, regardless of what role a person has in relation to the system; employee, customer, client, partner, provider, etc. Embedded analytics can quickly make sense of activity on the system, comparing it to stored information held on the system or elsewhere in order to make intelligent deductions, automate work, and deliver prompts and helpful insights to users. More and more, insurance carriers are working to offer self-service portals and omni-channel, seamless, and efficient customer service. Why? Because their customers are demanding it and they want to retain them and grow their business. This software is designed to be intuitive, interactive, and empowering for the user. However, it still comes with significant limitations because it is designed, developed, and implemented on the basis that it must integrate to the core legacy insurance systems for core information. What's more, there is a continuous layering effect where new systems are front-ending older generation front-end systems so the systems complexity is growing.

In a 2011 White Paper entitled 'Systems of Engagement and the Future of Enterprise IT: A Sea Change in Enterprise IT', by Geoffrey Moore, author of such books as Crossing the Chasm, it labels the new wave of modern front-end and enterprise collaboration software systems that focus on people as 'systems of engagement', whereas data processing systems are 'systems of record'. His reference to systems of record was in the context of manufacturing ERP systems and, at the time he wrote his paper, he saw systems of record and systems of engagement co-existing.

Today most insurers are maintaining a two pronged IT strategy of a) maintaining their systems of record in the back-office and b) continuously investing in new front-end systems of engagement for the end user (brokers, agents, providers, clients, and customers). Systems of engagement have been very much driven by the internet generation of software where everyone is used to an intuitive, slick user interface similar to what we see on our phones, tablets and laptops - we are witnessing insurance carriers moving quickly into the digital age, but they are still carrying the burden of their core legacy systems!

The following diagram is representative of the IT systems landscape of a typical carrier in the Life, Accident and Health industry.



Traditional View of Enterprise Systems

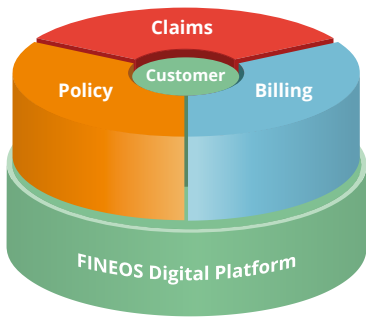
Our core product suite, FINEOS AdminSuite, is designed as a ‘system of differentiation’ to deliver a real competitive advantage to our customers.

Transform to Systems of Differentiation to Improve Competitive Advantage

While insurance carriers race to continually develop and deploy newer and slicker front-end systems to meet their user expectations, the cost of maintaining the layers of different technologies, software systems, and the integration software required to keep it all working together with the legacy core systems has been increasing dramatically, making the total cost of ownership of IT systems for Life, Accident and Health insurers a growing constraint. Given workforce demographic trends, there is a growing dichotomy between the core legacy software generation needed to service legacy systems disappearing and customer expectations rapidly increasing in line with a younger, tech savvy workforce and continuous advances in digital technologies which provide a totally new user experience. Non-insurance industries will continue to deliver superb digital service quality and so we all know customers will continue to expect improved personalized service from their insurers through a mixture of online, telephone, video, and face to face contact in a seamless and efficient manner.

Tom Scales explains why legacy core systems have survived so long in the Life, Accident and Health industry. However, the two pronged IT strategy of maintaining legacy core systems of record while also continually investing in new front-end systems of engagement is becoming more and more difficult, expensive, and an inefficient use of resources. It is also killing service quality and holding carriers back because their front line people find it difficult to quickly establish the context of a service request due to the reliance on legacy mainframe systems for this information. There is only so much a CIO can do to mask the limitations and create the illusion of a slick, efficient service experience.

We at FINEOS believe now is the critical time for Life, Accident and Health carriers to invest in the execution of a transformation program moving



FINEOS Admin Suite

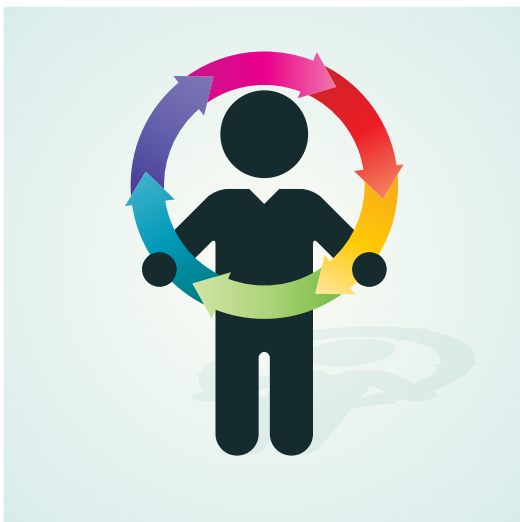
The carriers who transform their business using systems of differentiation will survive and thrive in the future.

away from legacy core systems to a new generation of core ‘systems of differentiation’ that are designed and deployed to replace core systems of record and also the systems of engagement that only serve to shield users from the limitations of legacy core systems. Our core product suite, FINEOS AdminSuite, is designed as a ‘system of differentiation’ to deliver a real competitive advantage to our customers. We conceive, design, architect, build, and deliver our core software solutions to support group and individual business on our FINEOS Digital Platform, enabling a world class omni-channel customer and client experience. Our product managers and designers manage and design our product suite from the outside in so we replace front-end systems as well as retiring legacy core systems with person-centric, configurable, flexible, and easy to use software to empower all users. In other words, we bring the back-office core system to the front-office, as we believe the core system lives in both areas. In this way we enable Life, Accident and Health carriers to turn their organizations inside out – enabling employees to spend more quality time with clients and customers.

Underpinning all FINEOS products is the FINEOS Digital Platform, which was designed from the outset in a way that future-proofs our products and takes advantage of innovation and new technologies as they emerge. Our Digital Platform enables our product designers and developers to build on and leverage many technology, application, and digital software features continuously made available by our separate FINEOS Platform team. This model ensures that foundational technology and digital capabilities, such as cloud support, analytics, and mobility, are available consistently throughout our application suite.

Gartner defines systems of differentiation as those that enable unique company processes or industry specific capabilities. They need to be current and relevant, typically having a short scale life cycle of around three years as they require regular reconfiguration to maintain current and changing business practices. In the highly regulated but rapidly changing insurance industry of today, our core systems are the systems of differentiation but need to encompass all three layers of the Gartner Pace-Layered model (i.e. system of record, system of differentiation, and system of innovation), to be both people-centric and product accurate. The FINEOS layered architecture, embodied in the FINEOS Digital Platform which supports our highly configurable core applications, enables FINEOS to address record keeping, differentiation, and innovation in one package to break down the distinction between systems of record and systems of engagement. We continuously invest in research, development, innovation, and reinvention.

FINEOS believes core systems of differentiation should be component based product suites. This enables carriers to replace their legacy systems in multiple phases, where they can choose to initially implement certain components for specific areas or business lines and then continually introduce other business lines and additional components of the suite in an orderly manner to meet customer and business needs. This flexible deployment approach enables CIOs and business leaders to move away from their reliance on legacy systems in a way that delivers significant early business benefits as each component of the suite is deployed. The approach enables users of existing legacy core systems to experience a rising tide rather than a tsunami shock wave of a ‘big bang’ new core system implementation. Along with the introduction of any new core system, a business change program should be implemented to ensure employees, business partners, clients, and customers move to the more flexible improved business models in a smooth and orderly manner.



360° Customer View

At FINEOS we have moved to the language of '360 Degree Service' through modern, powerful, flexible, configurable, core systems of differentiation that enable carriers to easily do business with their customers.

The carriers who transform their business using systems of differentiation will survive and thrive in the future and at FINEOS we are convinced the first movers in this space will use this as a competitive advantage to grow market share fastest during the next 5 to 10 years. In fact market research we undertook during 2014 found that some brokers, customers and employers are 'de-selecting' Life, Accident and Health insurers based on their poor administration capabilities. As explained, 10, 5, or even 2 years ago carriers could 'mask' the fact they had poor administration systems but in the digital 'do it now' world we live in today this is no longer feasible.

Finally, delivering a '360 Degree Customer View' has been a monumental achievement by those progressive insurance carriers that have met this goal. Group insurers are grappling with this very task today given their more complex world of customers, partners and clients. However, Life, Accident and Health carriers must go beyond attaining the '360 Degree Client and Customer View', they need this 360 View but they really need modern core systems of differentiation that enable them to completely care for their customers. This will be achieved by transforming from legacy to modern core systems and eliminating the waste, overlap, processing breaks and gaps.

Yes, at FINEOS we have moved to the language of '360 Degree Service' through modern, powerful, flexible, configurable, core systems of differentiation that enable carriers to easily do business with their customers, no matter what the issue, request, transaction, channel or business model. The number 360 has been important in computing for over 50 years and it should live on – not as a workhorse hardware system launched back in the 1960s, not even as a term to represent having a 'Single Customer View' but as a term to describe how Life, Accident and Health carriers will engage, do business and fully care for their customers – '360 Degree Service' – you heard it from FINEOS first!

Michael Kelly
CEO, FINEOS Corporation

