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From The Corner Office

Greetings on this beautiful autumn day. The leaves are changing here in the northeast. Business is emerging from the impacts of the COVID-19 slump. Some offices are re-opening, and children are back in school. We are all looking forward to a happy and healthy holiday season.

With this October issue, the Iron Chronicles is celebrating its first full year of publication. We hope our readers have received helpful, thought-provoking articles (and we always appreciate feedback on article perspectives or topic suggestions). As we count down to our 20th year of business, Enterprise Iron has not only survived but thrived by listening intently to our clients and the voices within our industry.

In this edition, we feature three timely topics. The first is on Modernization and discusses how a surprising amount of the Financial Services industry still runs on legacy code, but many people with the skills to support these systems are retiring. Next, we tackle Business Continuity and Disaster Recovery planning in the COVID era, and the critical updates to existing plans required by this new business environment. Lastly, we provide perspectives surrounding Lifetime Income Illustration requirements and specifications.

Be sure to say hello to our Enterprise Iron staff at the SPARK Forum next month!

Best Regards,

John R. Crocker
Co-Founder, EVP & CCO

UPCOMING EVENTS

SPARK Forum 2021 | Nov. 7th – 9th

Effective System Modernization: Why and How

By Tim Scott, SVP of Business Development

In today's business world, Enterprise Iron is engaged in multiple client conversations about system modernization, updating of systems to take full advantage of modern technology platforms. What has brought us to this point? Let's look back at the history of our industry in this area of technology.

The year was 1984, and a young man had just graduated from college. He sought a place to put his new degree to work and landed at a small recordkeeping shop. This company had recently acquired another with a system and was currently consolidating operations of the two firms.

Section 401(k) of the IRS code was only a few years old, and the first 401(k) plan had been in existence for about four years. In that brief period, the concept of a pretax savings vehicle had already started to catch on as almost half of all large companies had begun to offer these plans.[1]

It was an exciting time to be a part of a revolution in the retirement plans industry as a change was suddenly everywhere. This small outsourced recordkeeper realized there was a market for licensing their system so that plan providers could offer a broad array of their services. This company grew to become one of the dominant players in our industry through the visionary leaders, and the Omni platform was born.

Through the years, there have been other systems, most notably the TRAC system owned by SS&C (formerly DST). TRAC was initially built as an accommodation for mutual fund clients who wanted to offer retirement plans. Around 2007, DST decided that this retirement business could be a winner and seriously invested in the team and technology.

The origins of the DST system, upon which TRAC was built, date back to the late '60s. Many updates were applied to the system before TRAC was "spun off" to create a retirement-specific platform, but still…

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Why does this matter?

So why all this talk about 1984 and the late '60s in 2021? Interestingly, the financial services industry has been slow to modernize the core, back-end accounting and recordkeeping systems that process trillions of dollars of activity every day. COBOL and other "out of date" languages like Assembler (BAL) are still utilized – because they work! Even in 2021, they are efficient and secure processing engines because our business is large scale. Payroll processes that can include millions of participant updates nightly require large, efficient engines to meet the trading windows required for our plans.

Census data updates, conversion of plans from one provider to another, and tax form processing at year-end stress our systems. The Legacy languages have been effective for decades, and companies are slow to change something that works efficiently. The adage of "If it ain't broke, don't fix it" is never truer than with today's financial services firms. There are remnants of these antiquated systems that are still in use to some degree in some of the major recordkeepers across our industry.

A study performed by Reuters during the height of the pandemic found that 43% of all banking systems are COBOL-based, and a staggering 95% of all ATM swipes rely on COBOL code to varying degrees.[2]

Given these facts, why have we not seen a technology disrupter create a modern platform to compete with these major players? Our industry has seen multiple firms enter the market with promise, but most either focus on a particular market or have flamed out trying to become relevant. The retirement business is one of great complexity, continually changing regulatory requirements, that needs scale to be profitable. Simply put, it's just hard to break into this market. However, we are encouraged by some of what we are seeing in our industry today.

What approaches are firms taking?

At its core, COBOL is still relatively secure. However, there are several reasons why firms are looking at modernization. First, the supply of knowledgeable COBOL developers is dwindling as colleges and universities no longer teach the language. COBOL also runs largely on big mainframe systems that are incredibly costly to maintain.[3]

For years, many firms have taken the approach of not touching the core engines but have sought to minimize the impact on end-users by creating ancillary technologies that provide a buffer. As well-intentioned as these approaches may be, we created vulnerabilities that can be exploited by others who have nefarious plans and desires.

This approach usually requires additional databases that can often become out of sync, resulting in incorrect calculations and reporting. What of the security of those databases? One only needs to scroll through their favorite financial news website on any given day to hear of another data hack and security breach.

What's next?

Today, firms are starting to "rip off the bandage" and migrating their COBOL-based core applications to modern technology platforms. This promises to be an endeavor that is as expensive, complex, and risky as the Y2K transformation. Recently, both FIS (Omni) and SS&C (TRAC) have announced major initiatives to modernize their platforms. This involves bringing forward large, COBOL-based, mainframe systems into current technologies.

There are multiple approaches to COBOL modernization being employed by firms today. These approaches have their benefits and downsides. The first approach is a manual, line-by-line conversion. An army of consultants can migrate COBOL code to modern technology, such as Java or Python, but it can be costly and resource intensive.

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This approach often results in Java code that remains structured like the procedural COBOL code it replaces and does not take advantage of the features of the newer technology platforms.

The second approach to address these concerns is to use a conversion tool to automate some portion of the code. Typically, these automation tools fall short of a complete translation but can get the code much closer to fully translated. However, in many such cases, the translation tool creates a vendor lock-in requiring an ongoing license (and associated excessive fees) to use the vendor's APIs or platform to use, manage, or enhance the resulting translated code. In addition, every translated COBOL statement in this model becomes an API call, which is not a preferred methodology.

Enterprise Iron has an approach that is the best of both approaches. In partnership with ResQSoft, and its tool Engineer, we produce entirely reengineered source code that does not require vendor lock-in. The resulting source code is fully maintainable using any current industry standard tools. Database interfaces are easily created, and "dead" code is identified and marked for deletion.

For more information on Enterprise Iron's partnership with ResQSoft and our approach to modernization, please contact us to schedule a demonstration and discussion of our services.

>>> You might ask whatever happened to our young 1984 college graduate... he has spent 37 years in the retirement industry helping clients transform their recordkeeping environments and now gets to work with clients who are going through their modernization journeys.

[1]401(k) Basics: When It Was Invented and How It Works | Northwestern Mutual
[2]COBOL blues, www.thomsonreuters.com
[3]COBOL Modernization, www.resqsoft.com

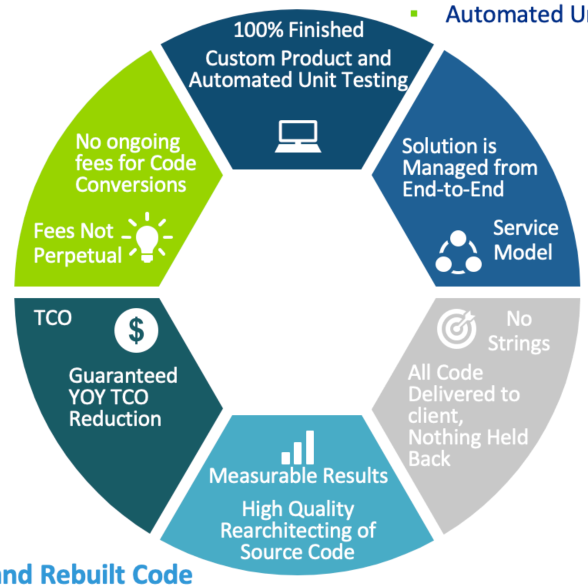
Differentiators from line-by-line converters

100% Finished Product

- Custom Finishing of Re-architected JAVA Code
- Automated Unit Testing of the Application

Fees are Not Perpetual

- When conversion ends, fees end
- No ongoing licensing fees for code conversions



End-to-End Solution Delivery

- Client resource commitment to the engagement is minimal (application completeness, guidance, and oversight)
- Both On-Prem and Off-Prem models are fully supported

YOY Cost Reduction

- Provable, defensible TCO
- Total TCO is reduced year over year

Client Commitment is Defined

- Complete source code is delivered to the Client
- No vendor specific APIs are required

Rearchitected and Rebuilt Code

- High Quality, measurable rearchitecting with demonstrable results
- Rebuilt modern, secure, mobile and cloud ready code

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Updating Your Business Continuity & Disaster Recovery Plans: Part 1 of 2

By John Crocker, Co-Founder & Executive Vice President

The widespread appearance of Business Continuity and Disaster Recovery (BC/DR) planning was predominant during the 1980s and 1990s. The majority of large firms had them written and stored, usually created by consulting companies. These documents were static, mainly used to prop open doors, and never intended for any other reason than to meet a corporate standard.

9/11 changed that and a curious thing happened. Nearly everyone – even some of the largest affected firms – shot from the hip. Almost no one opened their BC/DR plans. They were outdated and, in a lot of cases, not at all helpful. After 9/11, firms took planning far more seriously, including developing formal processes and procedures tested regularly. Fast forward twenty years, and we are now starting to emerge from a pandemic and face the need to completely re-think BC/DR planning.

Business Continuity Planning (BCP) outlines what happens when an unthinkable "Black Swan" event occurs. How do you keep operations working the next day? A Disaster Recovery (DR) plan states what returning to "normal" entails. The problem is that we have a "new normal" that no current BC/DR plan has built-in or even considered.

The Pandemic

Things have been strange in this pandemic. When we were all in offices, BC/DR plans meant (for instance) turning on the generator on the roof. What happens now? When is the "new normal" a hybrid working environment? Firms aren't dependent on a location they can control but instead depend upon thousands of employees working from home. Verizon FIOS. Comcast. That's how many of your people now "go to work."

The world's business environment is very fluid right now. We have to think in new ways about BC/DR plans. They are still critical but can no longer be static documents. We will live and work in a hybrid environment – in an office, remote, or another unknown situation. All of these factors now need to be considered.

At Enterprise Iron, our recommendation may seem a bit dramatic, but it is reasonable. Stop thinking about BC/DR plans as documents, and begin thinking of them as team processes, composed of people that must continually adjust to the world – thinking about what the next challenge might be, preparing on an ongoing basis.

Almost every BC/DR plan written two years ago is mostly useless. Intelligent firms will adjust to this. What happens when the power fails in Texas or NJ, and half of your employees now work remotely? We still don't know what the business environment will look like even a year from now. It most likely won't be 100% back in offices. Depending mainly upon the industry and the firm's size, a hybrid model (that firms are still fleshing out) is the most likely scenario, but the devil will be in the details.

What we are asserting is something new but necessary – an adjustment to a new world. BC/DR plans can no longer be seen as static documents with annual updates. They must be ongoing, flexible processes.

The Error of Planning Around The Past

Post 9/11, many of the adjustments to BC/DR plans focused on physical security as this was natural and understandable. When something shocking and unprecedented happens, the first reaction regarding BC/DR planning is, "We have to be prepared if it happens again." For instance, the firm I was working for on 9/11 opened a hot-backup site in the southeast (hourly partial backups so basic operations could resume within an hour) and a cold-backup site in Denver (extensive backups in batches every night and full operations could resume in less than 24 hours), as well as the development of all the processes and procedures required to utilize that model.

Yet, the problem with "planning around past events" is that, while necessary, it is not sufficient. The fundamental nature of events that shocked us – at a scale that required significant changes to corporate infrastructure and operations – is that they came entirely out of the blue and caught us wholly unprepared.

Two years ago, who, other than a handful of scientists, would have thought that a pandemic would emerge seemingly out of nowhere and infect, conservatively, over 200 million with loss of life tolling in the millions? Not to mention the severe disruption of both the public and private sectors globally, as new strains and resurgences have occurred for close to two years now.

For these reasons, static BC/DR plans designed around past events are no longer sufficient in today's fluid and increasingly interconnected world. The post 9/11 adjustments made to BC/DR plans have us better prepared if another 9/11 happens, but they are virtually irrelevant to the pandemic.

BC/DR as Process

A vital aspect of the "BC/DR as Process" approach is the periodic effort attempt to discern the broad strokes of what may emerge as future threats. One of the characteristics of major, surprising disasters is that they seem to appear with no precedent and no warning. This is true at the level of detail, but that does not mean it is impossible to see potentials at a 30K foot level.

In hindsight, there were signals indicating a possible threat leading up to 9/11 as it took a lot of time to orchestrate. Our federal three-letter agencies (FBI, CIA, NSA, DoD, etc.) were insulated and siloed, so the dots were never connected in time. In retrospect, the signs were there, but we weren't looking. The same event could not have been predicted, but evidence of planning undoubtedly existed.

Similarly, with COVID-19, the details and scale of this global pandemic took everyone by surprise. However, signs that the potential was lurking were evident in the epidemics in the last couple of decades. SARS (China, 2002); H1N1 (US and Mexico, 2009); MERS (the Middle East, 2012); Polio (a disturbing uptick in the Middle East, 2014); Ebola (West Africa, 2014); and Zika (Americas, 2015).

While these viruses and diseases spread to multiple countries and populations, luckily, they were largely contained geographically. The combination, however, of the periodic epidemics with the explosion of global travel in the past decade (making containment much more difficult) meant that while the details of COVID couldn't be seen, the potential for something this global certainly could be for anyone that was looking.

Almost by definition, it isn't possible to predict the exact nature of Black Swans. Still, it is sometimes possible to get a reasonable idea from which direction they'll be flying in.

In Conclusion

We know a lot more today about COVID-19 than we did a year ago and governments and businesses are making real progress in their handling of the pandemic. Every nation has been trying to solve two often contradictory goals: containing the spread of the virus while minimizing the damage to economies. No one has fully cracked that code, but there are reasons for hope.

Vaccination levels are increasing. Resurgences are being addressed far more rapidly and are often contained at more local levels. We are getting a much better handle on what businesses we can open and how to open them safely. While a lot of progress has been made, the pandemic is likely to be with us for some time, with ramifications likely to morph into different, unanticipated directions.

The fundamental purpose of BC/DR planning is to answer the question "what if?" and to do so by extrapolating potential future scenarios from current conditions. The pandemic is a "disaster," albeit (unlike 9/11) a slow-moving one. Corporations have had to expend so much energy just maintaining daily operations in this perpetually changing business environment that few have updated their BC/DR plans, let alone adjusted how they think about the planning process itself. Intelligent companies will do both.

In Part Two of this series, we will discuss the second major current threat: Hacking and Ransomware. Our view is that they should be elevated from IT Security and Risk

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Management departments where they currently sit and become embedded in BC/DR planning. Stay tuned.

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To learn more about this charity visit:
https://one.bidpal.net/tbclassic21/welcome

Lifetime Income Illustrations... Soon to be a Reality

By Denise Gumlak, Managing Director of Retirement Strategy & Delivery

In the summer of 2020, I had the pleasure of moderating an industry panel discussion, co-hosted by SPARK and Defined Contribution Institutional Investment Association (DCIIA) during the Summer Public Policy Forum Series. The panel included experts from five (5) of the leading retirement providers in the defined contribution space and an ERISA attorney on Lifetime Income Disclosures.
Fast forward 14 months later, we are preparing to implement the amended ERISA disclosure rules, as Lifetime Income Illustration requirements took effect on September 18, 2021 — one year after the Interim Final Rule publication date.

Background

Section 105 of the Employee Retirement Income Security Act of 1974 (ERISA) requires administrators of defined contribution plans to provide participants with periodic pension benefit statements furnished at least annually, or at least quarterly if the plan allows the participant to direct their own investments in their individual accounts.

The Setting Every Community Up for Retirement Enhancement Act of 2019 (SECURE Act) amended ERISAs disclosure rules to require that administrators of defined contribution plans provide participants with two additional lifetime income illustrations at least annually or quarterly, as noted above.

Under the SECURE Act, Congress directed the United States Department of Labor (DOL) to do three (3) things:

1. Issue an Interim Final Rule explaining how to calculate the lifetime income illustrations, specifically laying out the assumptions and other factors that plan administrators must use for calculating the estimated lifetime income stream that could be provided given the current account balance.
2. Issue model language that explains the illustrations and assumptions.
3. Issue the Interim Final Rule, assumptions, and model language within 12 months of enactment of the SECURE Act, enacted on December 20, 2019.

The Premise Behind Amending ERISA Disclosure Rules

"Employee Benefits Security Administration (EBSA) believes that illustrating a participant's account balance as a stream of estimated lifetime payments, in accordance with the Interim Final Rule will help workers in defined contribution plans to better understand how their account balance translates into monthly income in retirement and therefore to better prepare for retirement."[1]

In accordance with The SECURE Act, two (2) additional lifetime income illustrations will need to be included on participant statements:

1. A single life annuity with payments over the participants lifetime
2. A qualified joint and survivor annuity with equal payments over the participant and spouse's lifetime

Did you participate in 401(k) Day last month?
The campaign was supported by Enterprise Iron and assets are available all year on PSCA's website:
https://www.psca.org/401k-day-2021

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The Interim Final Rule and Assumptions used to Calculate Monthly Payment Illustrations

The DOL published the **Interim Final Rule** for Lifetime Income Illustrations on September 18, 2020. The Interim Final Rule also provides the public an opportunity to comment on the Interim Final Rules methodologies, requirements, and model language before the publication of the final rule.

The agency solicitation on the Interim Final Rule received **36 submissions** where commentators requested clarification on the applicability of the rule, the method for furnishing benefit statements, and in some cases commenters requesting transition relief to ensure affected parties had sufficient time to effectively implement the requirements of the Interim Final Rule.

The **Fact Sheet**, published on August 18, 2020, contains assumptions that plan administrators must use to calculate the monthly payment illustrations of participants' account balances as Single Life Annuity (SLA) and Qualified Joint and 100% Survivor Annuity (QJSA):

General Regulatory Assumptions	
Assumed Commencement Date	
On what date will the annuity payments begin?	Plan administrators must calculate monthly payment illustrations as if the payments begin on the last day of the benefit statement period.
Assumed Commencement Date	
How old is the participant on the annuity start date?	Plan administrators must assume that a participant is age 67 on the assumed commencement, which is the Social Security full retirement age for most workers, or the participant's actual age, if older than 67.
Assumed Spousal and Survivor Benefits	
What is the SLA benefit?	Plan administrators must illustrate a Single Life Annuity, which will pay a fixed monthly amount for the life of the participant, with no survivor benefit after the participant's death.
What are the QJSA spousal assumptions?	Plan administrators must assume that all participants have a spouse of equal age, regardless of a participant's actual marital status or the actual age of any spouse.
What is the QJSA survivor benefit?	Plan administrators must use a Qualified Joint and 100% Survivor Annuity, which will pay a fixed monthly amount for the life of the participant, and the same fixed monthly amount to the surviving spouse after the participant's death.
Assumed Interest Rate	
What is the assumed interest rate?	Plan administrators must use the 10-year constant maturity Treasury rate (10-year CMT) as of the first business day of the last month of the statement period to calculate the monthly payments. The 10-year CMT approximates the rate used by the insurance industry to price immediate annuities.
Assumed Mortality	
How should life expectancy be determined?	Plan administrators must use the gender-neutral mortality table in section 417(e)(3)(B) of the Internal Revenue Code, the mortality table generally used to determine lump sum cash-outs from defined benefit plans.

As an agency of the DOL, EBSA is charged with enforcing the rules governing the conduct of plan managers, the investment of plan assets, the reporting and disclosure of plan information, the fiduciary provisions of the law, and workers/ benefits rights.

EBSA is responsible for more than 660,000 defined contribution plans that are covered by the ERISA, as well as the approximately 102 million workers who participate in these plans.[1]

>>> An example based on the following facts is presented below[1]:

Participant X is age 40 and single. Her account balance on December 31, 2022, is $125,000. The 10-year CMT rate is 1.83% per annum on the first business day of December.

(see table on page 8)

[1]https://www.dol.gov/sites/dolgov/files/ebsa/about-ebsa/our-activities/resource-center/fact-sheets/pension-benefit-statements-lifetime-income-illustrations.pdf

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Example Illustration	
Current Account Balance	$125,000
Single Life Annuity	$645 per month for life (assuming Participant X is age 67 on December 31, 2022)
Qualified Joint and 100% Annuity	$533 per month for participant's life, and $533 for the life of spouse following participants following participant's death (assuming Participant X and her hypothetical spouse are age 67 on December 31, 2022)

DOL Clears Up Timing for Lifetime Income Illustration Disclosures

The DOL issued Temporary Implementing FAQs on July 26, 2021, clarifying points not addressed when the DOL issued the Interim Final Rule last September 18. The Interim Final Rule solicited comments on the regulations, and the FAQs address four questions that were raised by commenters:

General Regulatory Assumptions
Deadline for Participant-Directed Plans
Lifetime income illustrations must be furnished at least once in any 12-month period. Participant-directed individual account plans that furnish quarterly benefit statements to participants must comply with the Interim Final Rule and provide lifetime income illustrations on a benefit statement for a quarter ending within 12 months of the Interim Final Rule's September 18, 2021, effective date. For these plans, the lifetime income illustration can't be delayed beyond the second calendar quarter of 2022, because the ending date of the third calendar quarter (September 30, 2022) would be after the expiration of the 12-month period.
Deadline for Nonparticipant-Directed Plans
For plans under which participants or beneficiaries have their own account but *do not* have the right to direct the investment of assets in that account, the lifetime income illustrations must be on the statement for the first plan year ending on or after September 19, 2021. For most plans, the first lifetime income illustration must be provided on the annual pension benefit statement for the 2021 calendar year. For a calendar year plan, the deadline is October 15, 2022 – the last date for timely filing the 2021 annual return.
Use of Third-Party Administrator's Projections
Although the SECURE Act requires plan administrators to provide participants with Lifetime Income Illustrations that differ from the illustrations proposed in the DOLs 2013 ANPRM, the Interim Final Rule specifically allows for additional lifetime income illustrations. This permission was based on the Department's recognition that many retirement plans have been providing various types of illustrations for several years, including in some cases illustrations of the type contemplated by the ANPRM.
Transition Relief
The DOL noted that it appreciates the commenters' concerns about the burdens and challenges that could arise if the DOL issues a final rule that differs materially from the Interim Final Rule without sufficient transition time for plan administrators to accommodate any changes from the Interim Final Rule.

Summary

Plan sponsors need to be aware of the upcoming deadlines and work with their plan administrators to ensure that processes are in place to furnish the newly required Lifetime Income Illustrations in their pension benefit statements in a timely manner.

Since the final rule has yet to be published as of the publication of this article, both plan sponsors and plan administrators will need to keep a close watch on when the final rule will be published and modify compliance around, if variations emerge from the Interim Final Rule.

As a leading consultancy in the Financial Services industry, Enterprise Iron is well known and respected in the retirement space. For almost 20 years, we have been providing strategy, technology, and operational support to many of the defined contribution providers. If Enterprise Iron can be of assistance to your firm in any way, please give us a call!

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