Modernization: Reimagining COBOL Systems for the Digital Age

Vanson Bourne and Micro Focus: One ebook. A Tale of Two Surveys.

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Enterprises are reviewing infrastructures, applications, and the COBOL systems supporting back-end business processes in the drive for IT transformation. They have questions.

Does COBOL remain relevant in the digital change? Is modernization really the best transformation strategy? We needed to ask people in the know the right questions.

This eBook showcases the findings of two surveys by analysts Vanson Bourne: State of Enterprise IT 2020, and the Micro Focus commissioned Big COBOL Survey 2020. It polled global IT leaders and decision-makers, including the Micro Focus COBOL community, and focused on the challenges of enabling the platforms running COBOL systems for a digital future.

And it’s all about the themes.
Vanson Bourne discovered the three key influences of innovation, efficiency, and security were putting the IT department closer to the business and how it operates.

So how should IT spend reflect that? While 56 percent wanted more security, 57 percent called out innovation, and the same percentage cited efficiency.

These three key themes of modernization is where the enterprise must be. But how can decades-old core systems, never created with this level of change in mind, deliver on them?

Modernization for mainframe or COBOL systems is a strategic challenge, but it is possible. In the next pages we explain how in the context of all three themes.
Alongside the 63 percent who planned to modernize key COBOL applications, 37 percent plan to update their processes, and 38 percent will invest in infrastructure through COBOL system integration.

Some enterprises have the mainframe as the cornerstone, others have shifted specific workloads to alternative platforms, but everything must enable new users to deliver more capabilities.

They must transform the hybrid IT landscape behind previous success with innovative technologies that integrate, collaborate, and co-operate with an ever-growing list of devices and platforms.

Innovation cannot be at the expense of security. Enterprises must secure host applications with next-gen practices and technology, such as multi-factor authentication, access control, data masking, and encryption.

Key Theme 1

Modernization: the preferred path for digital transformation.

71% prefer to build on strength by re-using core business functions and create new value from current IT investments through modernization.

1. 46% say aligning applications to business needs to deliver competitive advantage is one of the top three most important things when modernizing/upgrading COBOL, and 38% say this for aligning the business to a new/evolving digital strategy.
**Key Theme 2**

**COBOL lies at the heart of strategic change.**

Technology is no longer just an IT department thing, and decision-making goes beyond the CIO. In 27 percent of modernizations, CEOs and other senior, non-tech roles were also planning stakeholders.

So who drives the strategic alignment between COBOL systems with modern-day technology? The 36/33 percent split between CTO and CIO proves IT now underpins the organizational drive toward cost management and efficiency.

But how does the organization running older, legacy systems mesh with the new technology enabling the COBOL application journey into the future? Do they have the business agility and ability to change?

The quick answer is yes. Many respondents saw COBOL as a foundational element of IT and business change. The survey showed that 92 percent, up 8 percent, see their COBOL applications as “strategic”.

There’s more—53 percent plan to modernize their systems/applications which will add to a growing COBOL base, already up to 10M from 8.4M lines of code.

- **92%** see their COBOL applications as “strategic”
- **53%** plan to modernize their systems/applications
- **42%** now see cloud as the top priority

2. Additionally, 36% (from 25) now see a need for better integration with RDBMS systems to improve both IT efficiency and customer insight and take on new opportunities. This reflects new strategies requiring COBOL’s ongoing evolution.
These findings acknowledge the need to do some things differently, while keeping others exactly as they are. Inspirational, lightbulb moments cannot be at the expense of keeping the lights on.

But new technologies mean fresh challenges, and risk-averse CIOs or CFOs will want to avoid adding their corporate dollars to the $1.7 trillion wasted on failed IT projects in a single year.

One survey revealed ambivalence about some disruptive trends: 80 percent struggle to invest in new technologies and trends, while 27% doubt AI will fulfill its potential by 2030.

Favouring “tried-and-trusted” above “potential without proof” may be driving the continued investment, re-use, and expansion in core COBOL systems.

Building on strength represents a better strategy than betting the farm on a handful of magic beans, as characterized by two additional findings:

1. **Cause**
   As the business and technical case for modernization grows, COBOL’s “net increase” reflects continued market usage, reliance, and value.

2. **Effect**
   COBOL modernization, changes in where it must be delivered, how it is being delivered, and ultimately its increased usage and footprint.

Like other future-focused organizations, the COBOL enterprise avoids risky upheaval and refreshes to what already works, adding new and exciting innovation to time-proven and reliable core systems.
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Key Theme 3

Digital demands that COBOL systems work alongside modern technology.

Survival in a digital, hybrid world means meeting new demands, including mobile and cloud connectivity, while protecting the systems underpinning the business with enterprise-level security.

Micro Focus modernization retains what works, and renews and transforms what must change, to enable future innovation on every hybrid IT platform: mainframe, server, mobile, on-premises, and off-premises. Uniquely, it recognizes modernization as a three-pillar challenge:

1. Application
   Extending application value with low-risk innovation

2. Process
   Leveraging new practices and tools for Agile and DevOps

3. Infrastructure
   Deploying applications across mainframes, servers, the cloud, and mobile devices

The Micro Focus transformation roadmap creates new value from longstanding COBOL investments and reuses the unique value of apps and data in new ways, such as leveraging cloud or containers to deliver game-changing innovation—faster.
Micro Focus Application Modernization

Our application modernization portfolio delivers four things to realize one ambition—enabling smart digital transformation.

- Bridging old and new IT investments—by reusing not replacing.
- Protecting and using core system IP in new ways to serve the business.
- Increasing app and data value by delivering changes faster with lower risk.
- Leveraging cloud or containers to drive new business.

The Micro Focus Application Modernization and Connectivity portfolio prepares organizations running COBOL mainframe applications for every facet of the digital future.

That's all of it; from automated functional and performance testing, to cloud access, through to integrating enterprise-level security via robotic process automation.

An increasingly hybrid IT world is the bringing the cloud closer to the mainframe, just as the need to unite systems and processes, co-managed by IT and the business, becomes more apparent.

Success in an increasingly competitive digital world is about adding the innovation you want to systems that already work.

To build on strong foundations, such as core COBOL systems, that have served the business well while adding the innovation the market demands.

We call that modernization. And we have a 40 year track record in reducing customer risk by adding new technologies to proven systems.

What could we do for you?

40+ years
Further Reading

1. **Web page**
   COBOL. The foundation of application modernization
   [View web page](#)

2. **Webinar**
   #COBOL60—Shaping the Future of Core Business Applications
   [Watch now](#)

3. **White paper**
   COBOL at 60: A Living Legend
   [Read it now](#)

4. **Ebook**
   Onward and Upward: How COBOL enables mainframe transformation
   [Get the ebook](#)