



## Brochure

Application Modernization and Connectivity

# Insight, Innovation and Integration for Critical Business Applications

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# Delivering Mainframe Application Modernization with Confidence

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## Unprecedented Challenges

We will doubtless look back on 2020 as a time of unprecedented upheaval. The digital era has transformed how the organization sees IT. Rising demand for more dramatic change, at greater pace, has put IT under greater pressure than ever. At the same time, global events have turned many IT operations upside down, and the challenges of remote collaboration—connecting in a disconnected world—have thrown normal practices up in the air.

Hitherto acceptable rates of change, speed of delivery and cost of provision all face renewed scrutiny as many organizations, and their IT teams, face genuine existential challenges. Failure to change, and fast, means an inevitable downturn in fortunes.

## Modernization Matters

But rapid change can be expensive, and risky. Studies reveal eye-wateringly high failure rates of “rip and replace” IT projects. Instead, organizations can accelerate their digital transformation journeys by reusing their unique and business-critical core applications and data, enhanced repeatedly over time, in the context of fresh innovation. In other words, not replacing, or rewriting—but modernizing, a pragmatic, low-cost, low-risk transformation model.

Modernization covers a wide array of technical and operational activity. The recent IDC *InfoBrief*, sponsored by Micro Focus, summarized<sup>1</sup> it, “Modernizing investments in core mainframe and other existing systems for DX and innovation is vital across applications, process strategies, and infrastructure.” Micro Focus’ comprehensive Modernization capabilities embraces these three aspects of core IT modernization:

- **Application**—Increase application value with low-risk innovation. From a modernized, secure web and mobile experience, to process automation, to APIs, web services and managed code models that support composite application delivery
- **Process**—match application delivery speed to the pace of change. Achieve rapid application analysis, agile development, enable continuous testing and accelerated delivery

- **Infrastructure**—organizations seeking greater connectivity, flexibility, security and cost efficiency can rapidly deploy applications across host, server, Cloud and Containers, insulating IT from future change strategy

## Key Next Steps on the Modernization Journey

Each modernization journey will be driven by the uniqueness of the business situation and technology strategy, and will need to consider Application, Process and Infrastructure questions. Recent market and customer input suggests emerging trends in terms of CIOs’ success criteria for digital-ready enterprise systems:

- **Improved Application Modernization**—Execute important application changes and support API initiatives to expose and integrate trusted functionality as new services
- **Insight through Process Modernization**—Achieve with speed, the necessary steps to understand, identify, execute and test critical business system changes and new functions
- **Innovation through Infrastructure Modernization**—Seize upon the advantages offered by cloud computing and containerization to deploy new business services rapidly, cheaply, and flexibly

Overall, this list reflects a core requirement to build on strength: take proven business systems, and adapt, evolve and innovate to accelerate business outcomes. Little wonder then that these topics are the emphasis for Micro Focus’ latest release of its Enterprise Suite. Let’s look at each in turn, starting with Infrastructure Modernization.

## INNOVATION—INFRASTRUCTURE MODERNIZATION

Enterprise-scale computing to achieve large-scale reliability, availability, serviceability and performance criteria as the business demands has traditionally meant the IBM mainframe. Even today, the latest Z

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<sup>1</sup> IDC *InfoBrief*, sponsored by Micro Focus, *Modernization Strategies as a Foundation for Digital Transformation (DX)*, April 2020. [www.microfocus.com/en-us/assets/application-modernization-and-connectivity/modernization-strategies-as-a-foundation-for-digital-transformation-dx](http://www.microfocus.com/en-us/assets/application-modernization-and-connectivity/modernization-strategies-as-a-foundation-for-digital-transformation-dx)

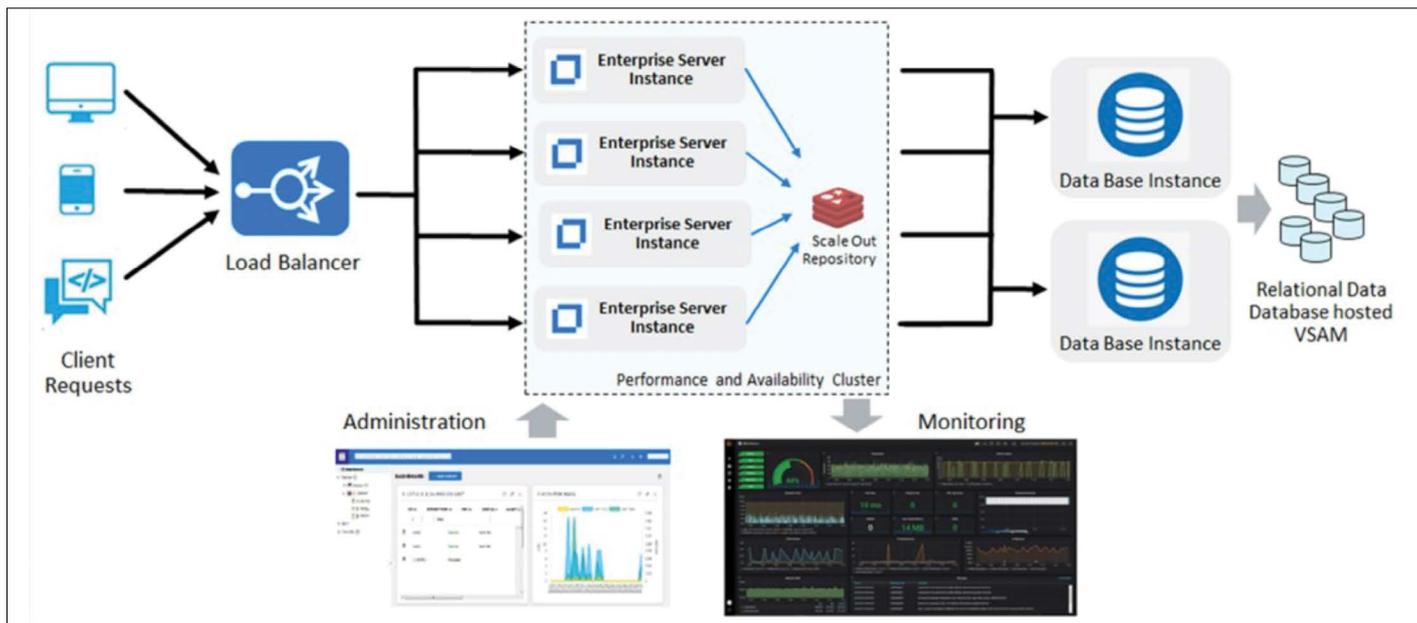
mainframe servers offer astonishing capabilities for many of the world's most successful organizations.

In addition, there is growing market evidence that mainframes often sit alongside other environments to offer a hybrid corporate computing solution. With these new levels of flexibility, for many the time is now to reassess trusted perspectives on the best enterprise deployment model of core business systems. With new business drivers affecting IT strategy, such as reaching new geographies or markets, supporting a blended, Hybrid infrastructure strategy, finding "spare" MIPS capacity for new business on the mainframe, and many others, the reality of today's mainframe CIO is that they need to examine once again the right blend of platform deployment strategy.

For some, the economics of scalable enterprise computing are at the tipping point in favor of scale-out (multiple commodity servers running parallel workload deployments) instead of scale-up (workload consolidated on a single, large-scale platform) to meet certain business requirements. The advent of mainstream cloud computing offers a genuinely new way of looking at performance, cost and scalability.

Micro Focus Enterprise Suite 6.0 further extends our robust deployment capabilities using our scale-out technology. This support covers deployments whether on premise, using VMWare and HyperV, or deploying into AWS, Azure or GCP cloud environments. Highlights include:

- VSAM/QSAM data can reside in IBM DB2 LUW, as well as MS SQL Server and PostgreSQL databases, benefitting from the data sharing, replication and recovery facilities they provide. From an application perspective, treating data in this way means that existing processes can be retained without change, but at a system level the application data can be treated the same way as other data, making it more accessible, easier to replicate, manage and secure
- Users can perform all admin tasks for multiple Enterprise Server resources from a single admin console, the Enterprise Server Common Web Administration (ECSWA) interface. Services exposed through JSON APIs means that processes can be automated and information shared with a variety of 3rd party Enterprise Systems Management tools



**Figure 1.** The Enterprise Suite deployment engine, Enterprise Server, supports application regions operating in a cluster and managed through a common web admin tool, accessible by IT operations monitoring tools. VSAM data is hosted is a relational data for high availability and throughput is managed through a system load balancer

- Support for building and deploying to Kubernetes offers a cost effective alternative infrastructure that provides operational flexibility and availability through rapid deployment, automated recovery, auto scaling and zero downtime systems management. Furthermore, it removes explicit dependencies upon the current choice of on premise or public cloud, or to a specific cloud vendor platform

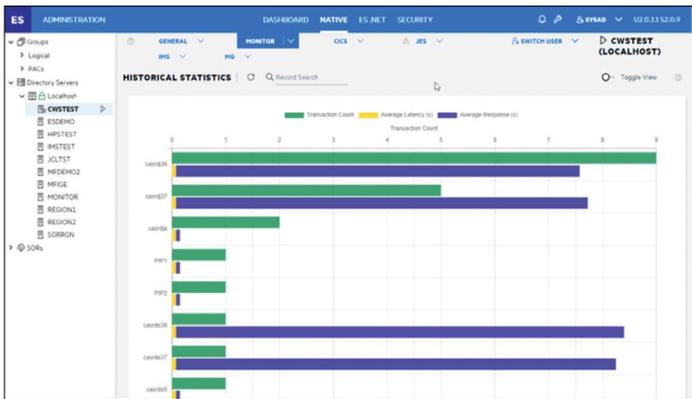


Figure 2. The Enterprise Server Common Web Admin UI includes a variety of new features and facilities in 6.0

**INSIGHT THROUGH PROCESS MODERNIZATION**

Enterprise-class, scalable deployment environments require enterprise class expertise to continue to build, maintain and modernize those systems, regardless of deployment platform. Today’s IT climate demands that there exists the people, process and modern tools to ensure IT can respond quickly to change, yet those who are skilled in the task of mainframe development are typically in limited supply, as are their possible successors.

As many organizations are now finding, using modern technology simplifies the task of training those already knowledgeable in Java or C#. The additional syntax of COBOL or PL/I systems is straightforward, and less effort than finding and training mainframe professionals on traditional tools.

Micro Focus believes that building mainframe applications should be as efficient and contemporary, and accessible, as any other applications. This means highly functional developer experiences and a fully integrated toolchain at the backend to automate tasks such as requirement management, source control, assessment, build and delivery.

As such, Enterprise Suite 6.0 provides further support for application delivery for today’s mainframe developer.

- Availability of mainframe application delivery tools through a modern IDE, offering integration with CI/CD, planning, analysis, testing and both mainframe and distributed SCCM tools.
  - This modern mainframe environment can be hosted on premise or entirely cloud-based
  - The environment includes application wide analysis information directly in the IDE

Integration of Enterprise Analyzer into agile tool chains through REST APIs allows application changes submitted into source control to be automatically updated in the knowledge repository so that developers always have current analysis information

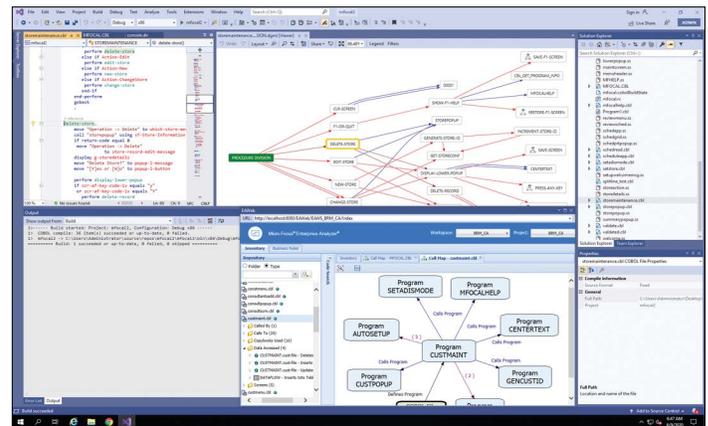


Figure 3. The Enterprise Suite offers detailed, real-time application analysis information embedded within the developer IDE or as part of an automated CI/CD delivery process. Enterprise Suite integrates with and supports the modern mainframe delivery toolchain including for example Jira, Git, Jenkins and UFT

**IMPROVED APPLICATION MODERNIZATION**

According to one industry report<sup>2</sup>, integration challenges are slowing digital transformation initiatives for 85% of IT organizations. Expectations for today’s IT landscape is one of highly connected composite applications that offer the collaboration and integration the modern business needs.

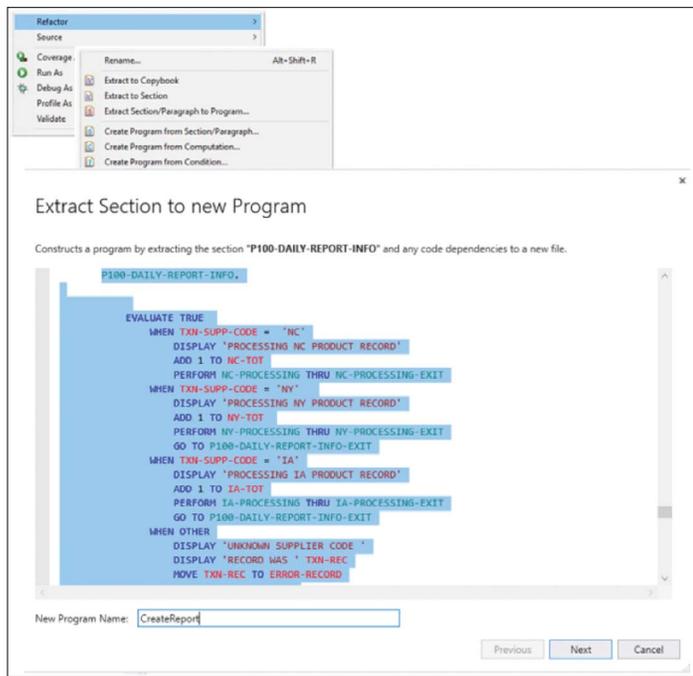
One common concern among those who manage core COBOL systems is the sheer size, scale and complexity of the applications involved. The

2 <https://resources.mulesoft.com/ty-report-connectivity-benchmark.html>

value of these applications is the business processes and services they deliver but poor understanding of the application and the processes they encapsulate is resulting in low reusability or repurposing of code.

To help customer tackle this challenge, this latest release of Enterprise Suite provides incremental facilities to support rapid and reliable application change:

- Automatic processes for identifying, documenting and managing business rules in a central searchable repository are included in Enterprise Analyzer 6.0
- Armed with the intelligence of how business processes flow through an application developers can take advantage of unique “Code Slicing” capabilities in the IDE, to help isolate, test and deploy business logic into new service-based or micro service architectures, saving time and reducing risk



**Figure 4.** Enterprise Suite 6.0 includes a robust set of facilities to identify, extract and build new code fragments, enabling them to be called using APIs.

### Enterprise Application Modernization from Micro Focus

Our track record and credentials in Enterprise Modernization offers our customers a unique and comprehensive capability.

- We can help streamline development and delivery activities by 40%, using contemporary technology, DevOps agility and unrivalled flexibility
- We have delivered 1,000+ modernization projects in recent years, supported by a major global partner network and the Micro Focus Modernization Maturity Model<sup>3</sup>—a framework for planning and implementation of a modernization journey.
- Deploy COBOL and PL/I applications in a native or managed code environment, and across all major supported platforms on the market *unchanged*.
- Works for all core applications and major data stores. Take your database variants into both mainframe and distributed worlds.
- Rest assured with certification of virtualized and Cloud environments including AWS and Azure, and containerization, including Docker and Kubernetes.
- Customers have achieved 50%–90% reduction in IT operations costs and a performance improvement of up to 50% for batch and online transactions

### Enterprise Suite Products

- **Application Analysis**—Enterprise Analyzer
- **Application Development**—Enterprise Developer for Z
- **Application Testing**—Enterprise Test Server
- **Application Deployment**—Enterprise Server

For more information visit: [www.microfocus.com/en-us/products/enterprise-suite/overview](http://www.microfocus.com/en-us/products/enterprise-suite/overview)

Learn more about Micro Focus' Modernization solution: [www.microfocus.com/amc](http://www.microfocus.com/amc)

<sup>3</sup> [www.microfocus.com/media/brochure/the-micro-focus-modernization-maturity-model-brochure.pdf](http://www.microfocus.com/media/brochure/the-micro-focus-modernization-maturity-model-brochure.pdf)

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