



Highlights

- Optimize trading, risk management, and operations with the Murex MX.3 integrated capital markets platform, paired with certified IBM Storage solutions
 - Deliver extreme performance for time-sensitive transactions and mixed workloads with ultra-fast IBM FlashSystem
 - Manage unstructured data growth with IBM Spectrum Scale while improving application performance with scale-out and flash-based acceleration
 - Leverage IBM Storage to simplify IT, reduce costs, achieve new operational efficiency, and improve business agility
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IBM Flash and Software Defined Storage with Murex MX.3

Fueling growth and success in capital markets

Organizations operating in the capital markets segment of the financial services industry find themselves facing a rapidly changing world. More data is pouring into financial systems from a wider variety of sources, and a lot of that data is unstructured. Institutions and financial organizations must make sense of this data in near real-time to make educated transaction decisions and execute promptly to remain profitable and competitive.

In addition, the complexity of capital markets is at an all-time high, with organizations facing new forms of risk and new compliance requirements on a regular basis. Organizations must be able to deal with these challenges while also focusing on growth, innovation and being more cost efficient than their competitors.

With all of these factors to consider, it's clear that financial organizations can no longer continue to rely on a hastily assembled collection of single-purpose tools. Instead, they need a proven, comprehensive capital markets solution paired with a storage infrastructure that can fuel success and growth.

With Murex MX.3 and IBM Flash and Software Defined Storage, that's exactly what you get. Murex MX.3 is helping thousands of financial institutions across the world transform their businesses and rebuild themselves to respond to the challenges of the modern financial world more effectively. Financial organizations can also rely on award-winning and Murex-certified IBM® FlashSystem® and IBM Spectrum Scale™ to provide the high performance, seamless scalability, ultra-low latency and cost-efficiency needed to thrive in the marketplace.



Murex MX.3: The end-to-end platform for capital markets

Murex specializes in the design and implementation of complete solutions for financial institutions, corporations, and utilities. MX.3 is Murex's third-generation, end-to-end platform that integrates cross-asset trading, processing, and risk management, and is designed specifically to address the following challenges facing the modern financial services industry:

- Consolidating technology to be scalable, flexible and efficient
- Complying with complex and constantly changing regulatory requirements, both now and in the future
- Controlling risk while pursuing new opportunities

Furthermore, MX.3 offers specialization and robust functionality across all asset classes, meaning that it's no longer necessary for organizations to assemble and manage disparate solutions from multiple vendors to create the complete capital markets platform they need. Instead, organizations get a single integrated solution that makes deployment and management simple.

Using MX.3, financial organizations can do more than just keep up with a rapidly changing business environment; they can prepare themselves to thrive in it. For these organizations, MX.3 is a transformation enabler, allowing them to realign their business for greater effectiveness, reengineer their processes for greater efficiency, and identify new opportunities for greater profitability.

IBM Storage: Dynamic performance, scalability and efficiency

IBM Storage offerings can help MX.3 users realize higher performance, lower latency and better cost efficiency. With a unique portfolio of innovative solutions, IBM Storage is well-positioned to provide the level of service and reliability that Murex customers need to meet the challenges of the modern financial environment.

IBM FlashSystem and IBM Spectrum Scale are two key offerings that can enable outstanding results for MX.3 users.

IBM FlashSystem: Application acceleration and enduring data economics

With the high volume of trades executed every day and the demand that organizations face to execute them quickly, capital markets provide an ideal use case for enterprise-ready flash storage technology. IBM FlashSystem storage arrays provide the rapid response time, scalable performance, and operational efficiency needed for today's fast-paced financial marketplace. In fact, with IBM MicroLatency[®], MX.3 users running IBM FlashSystem 900 can achieve response times as low as 90 microseconds.¹

Murex users can pair their MX.3 platform with IBM FlashSystem to achieve high performance that allows them to rapidly process millions of trades. The STAC-M3 benchmark found that for specific financial workloads, IBM FlashSystem 900 offers performance levels up to 212x higher than the previous best published results.² This level of performance can help organizations feel confident that they are operating at top speed, and that their storage systems will never stand in the way of their competitiveness.

IBM FlashSystem can also provide important benefits when it comes to reducing costs and complexity. Specifically, organizations can get more capacity than traditional storage in less rack space. This means that a data center based around IBM FlashSystem can deliver better results while also occupying a smaller physical space and consuming less energy. These benefits contribute to lower operating expenses, which are a big reason IBM FlashSystem offers a 76 percent annual return on investment over traditional storage.³

Finally, IBM FlashSystem 900 offers 99.999 percent availability⁴, helping capital markets firms get uninterrupted access to important data right when they need it.



Figure 1: IBM FlashSystem and IBM Spectrum Scale are ideally suited for today's fast-paced marketplace, and are certified for the Murex MX.3 platform.

IBM Spectrum Scale: Cost-efficient data management at scale

As the volume of data entering financial systems continues to increase, the ability to scale quickly and do more with less is becoming a high priority for financial institutions. IBM Spectrum Scale can help enable this kind of scalability. By unifying virtualization, analytics, and file and object use cases into a single scale-out environment and applying flash-based acceleration, Spectrum Scale can help organizations support massive scalability while achieving significantly better application performance.

Spectrum Scale empowers MX.3 users to capitalize on high performance and lower costs simultaneously by merging top-of-the-line flash storage and more affordable tape or cloud storage within a single management infrastructure. Using cognitive computing and policy-driven automation, financial organizations can leave higher priority data on high-performance flash, while pushing lower priority data to tape or cloud to take advantage of potential cost savings. This allows them to easily manage data at scale, while also lowering the cost of data retention by up to 90 percent.⁵

**The IBM/Murex partnership:
Delivering greater business value**

A strong partnership between Murex and IBM, based on years of collaboration, led to the development of best practices for ensuring that financial institutions could successfully and consistently deploy Murex MX.3 with IBM Flash and Software Defined Storage.

IBM and Murex offer a complete technology solution that combines hardware and software offerings to help improve performance, reduce IT complexity, lower costs, and increase flexibility for better business agility in a dynamic financial marketplace. This solution and the partnership that helped build it are dedicated to driving greater business value for joint IBM and Murex customers.

In a recent internal validation study, Murex tested IBM FlashSystem on a massive Oracle checkpoint (random 8K writes). The results of the study showed that IBM FlashSystem was able to support the MX.3 platform with massive random IOPs and heavy throughput, thus removing any performance bottlenecks. Based on these results, Murex made the decision to invest in a FlashSystem environment for their own data center. They now use this environment to perform proofs of concept for their customers.

For more information

To learn more about IBM Storage solutions, visit ibm.com/storage, or contact your IBM representative. To learn more about Murex MX.3, visit murex.com.



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- 1 “IBM FlashSystem 900”, (<https://www.ibm.com/common/ssi/cgi-bin/ssialias?htmlfid=TSD03191USEN&>)
- 2 STAC-M3 benchmark: eXtremeDB Financial Edition 7.0 on IBM Power System S824L with IBM FlashSystem 900 Storage. (<https://stacresearch.com/XTR160413>)
- 3 Enterprise Strategy Group: “Comparing IBM FlashSystem to Traditional Performance Disk Systems.” (<https://www.ibm.com/common/ssi/cgi-bin/ssialias?htmlfid=TSL03184USEN&>)
- 4 IBM internal measurements, February 2016.
- 5 IBM analysis based on a list price comparison of a 1 PB IBM TS3500 Tape Library, 1 IBM Spectrum Scale license and 1 IBM Spectrum Archive EE license, compared to the cost of IBM DS5100, including annual maintenance.



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