

Call for change

A foundation for future success

Financial regulators play an essential role supervising and regulating banks and other financial institutions. With financial technology revolutionizing traditional banking models at a rapid clip, regulators too have been increasingly adopting technologies like cloud computing to keep pace. The Municipal Securities Rulemaking Board (MSRB) is a regulatory organization that promotes fairness and transparency in the municipal securities market. The MSRB plays a vital role in safeguarding the nearly \$4 trillion municipal securities industry that helps provide reliable income for investors and efficient capital for communities. The MSRB saw an opportunity to tap into the scalability and flexibility provided by cloud computing while avoiding looming

infrastructure investments by migrating their data centers to Amazon Web Services (AWS). They realized that a cloud migration could help them enhance operational excellence, harness the power of their market data, and create a platform to digitize regulatory, compliance, and monitoring practices.

But the migration had to be done quickly to avoid upcoming data center lease renewals. At the same time, the MSRB recognized that sustainable success in the cloud would hinge upon equipping its workforce with the right skills and tools using comprehensive change management and workforce transformation programs.

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MSRB's Cloud Transformation Program involved three integrated workstreams



Migrating on-premise data centers to AWS cloud



Workforce Transformation



Continued Managed Services

When tech meets human ingenuity

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Getting ready for a cloud-first world

Accenture and the MSRB worked closely to conduct a feasibility assessment and develop a robust business case for an enterprise-wide cloud migration. The team brought the MSRB's Board of Directors and senior executives together for focus groups and a cloud visioning workshop to help imagine how the organization needed to evolve to address industry needs. These sessions yielded invaluable insights about how the MSRB's role as a regulator could change in the coming years and how the cloud could provide an efficient and innovative platform to achieve the MSRB's strategic objectives with efficiency, flexibility, and agility.

The cloud transformation program involved three integrated workstreams: migrating onpremise data centers to AWS cloud; workforce transformation; and ongoing managed services. As part of the cloud migration workstream, several teams from Accenture, including the Accenture AWS Business Group (AABG), Infrastructure Engineering, and Human Capital, worked seamlessly to deliver lasting value to the client. Accenture and AWS collaborated to help the MSRB set up an environment that aligned to AWS's Well Architected Framework and develop robust cloud security, network, and application architectures. The team architected and built cloud landing zones, activating key infrastructure and services in AWS to migrate workloads to the cloud. They also leveraged Accenture myNav, our leading-edge cloud migration and management platform, to help the MSRB navigate the complexities of the cloud and accelerate the migration. With myNav, we helped create a configuration management database (CMDB) to monitor the inventory and define, sequence, and execute the migration activities.



When tech meets human ingenuity

The transformation was underpinned by clear communication and engagement plans and a series of Cloud Pop-Up events that provided an innovative platform for open discussions and engagement.

More importantly, the CMDB provided all around visibility into the program's progress. The MSRB had a complex and technical process for replicating data across its Oracle databases. The team leveraged deeply skilled Oracle database engineers from Accenture Enkitec to rearchitect and seamlessly migrate the MSRB's large, complex Oracle databases to AWS cloud while ensuring there was no additional licensing burden on the client.

The enterprise-scale migration program was complemented by an overarching change management and workforce transformation effort (including governance, operations, and learning). Recognizing the need to refresh the IT strategy, policies, and roles to fit the new

ways of working in the cloud, the MSRB and Accenture set up a Day 1 Governance Team to provide guiding principles and oversight. The team conducted a comprehensive analysis of policies, standards, and procedures appropriate for a cloud-first world.

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When tech meets human ingenuity

This human-first approach not only helped the client deeply engage and inspire its workforce, it also helped rally everyone around a common vision and strategy for the future.

Accenture and the MSRB co-created a workforce learning strategy to help the MSRB staff build the skills necessary to succeed in the cloud. This involved defining and mapping new IT and cloud roles as well as designing the cloud learning journey across six learning tracks (shared services, service management, architecture, strategy, delivery, and data).

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The third workstream involved supporting the cloud and legacy environments during the transition from on-premise data centers to AWS cloud. Accenture and the MSRB will continue to collaborate on application modernization and optimizing the new cloud environment.

Accenture provides managed services in the cloud, including Level 1 and 2 technical support, patching and antivirus, backups, infrastructure monitoring, and capacity management.

In addition, the team uses Accenture myNav to improve service management maturity, provide cloud governance, optimize costs, and standardize processes in the cloud.

A valuable difference

Completely in the cloud

In just 9 months, MSRB and Accenture migrated about 250 virtual machines, 80 databases and 20 applications from three data centers to the AWS cloud in a series of 10 waves—all on budget and on time. By focusing sharply on testing and quality assurance during the pre-production waves, the team accelerated production cutovers while mitigating risks. In addition, on-premise data centers were shut down and vacated in 3 waves to help the client optimize software licensing costs. And, availability has been paramount—since moving to the cloud, the MSRB has exceeded its uptime and availability requirements.

After completing the migration, the team also helped the MSRB create a multi-year application modernization roadmap, with target state architecture and modernization strategy to help reduce legacy debt. Further, Accenture's Cloud Innovation Center helped the MSRB redesign the user interface for MSRB.org and the Electronic Municipal Market Access (EMMA®) website – their flagship market transparency system to enable a rich and seamless user experience.

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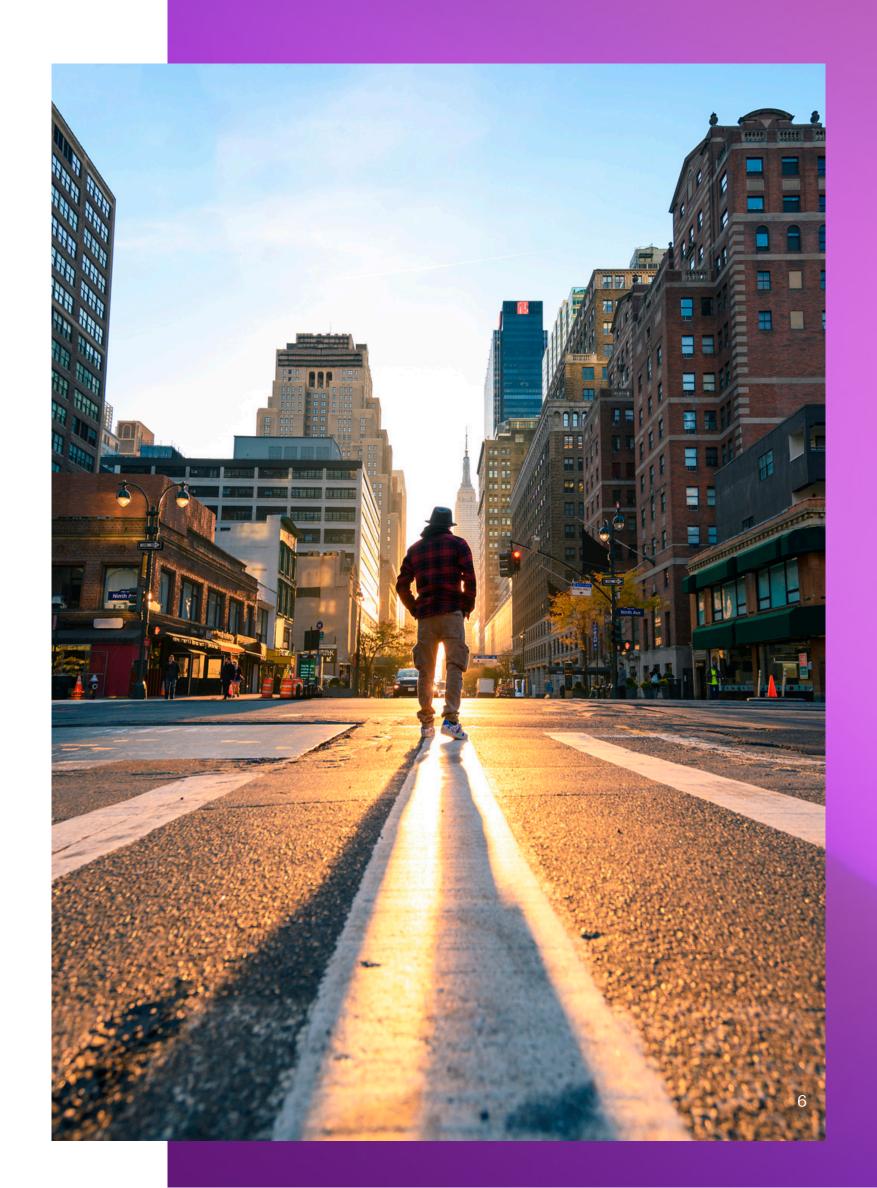
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The educational component of the workforce transformation program has proven to be crucial in reskilling and engaging the workforce to inspire new behavior and ensure long-term success in the cloud. In a resounding endorsement of the program, 91 percent of surveyed learners reported that their learning journey experience matched or exceeded expectations.

In addition, with six learning tracks, detailed skills mapping, and new organizational roles, the MSRB's leadership and staff are well-equipped with all the necessary skills and knowledge. And with Accenture providing managed services for all the cloud environments comprising 250 instances, 134 databases, and over 70 workspaces, the MSRB engineers can now work further up the stack, with more time to focus on the mission-critical and value-adding functions.

One of the biggest successes of the program has been supporting and enabling a smooth transition to fully remote working during the COVID-19 pandemic while keeping to original timelines. With the move to AWS cloud, the MSRB now has the versatile solution it needs for always-on flexible and scalable operations. What's more, by taking a human-centric approach to the cloud through a comprehensive workforce transformation and reskilling program, the MSRB has laid solid foundations for future success in a cloud-first world.



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