

Unlock Innovation With Data-Led Migration in the Public Sector

Make data a strategic asset

E-BOOK

Business and IT leaders around the globe agree on the mission-critical nature of their data, and that they need to leverage data to drive innovation, derive unique insights, and reduce costs.

The public sector in particular is tuning in to the value of data and developing data strategies closely linked to overall organizational goals. In response to disruptions brought on by the pandemic, public sector organizations are working to maximize the value of their data, to better support quick decision-making and better serve their constituents.

The intrinsic value and importance of data is well documented: A few years back, *The Economist* concluded that data—not oil—is the **world's most valuable resource**, and *Forbes* called data "**the ultimate renewable resource**." *Harvard Business Review* went a step further, stating that a data strategy is the **central determinant of a successful organizational strategy**.

Data Potential, Data Challenges

The challenge for public sector organizations is that they often have internal systems that are incapable of efficiently gathering and analyzing data from an ever-growing number and variety of sources. This restricts their ability to extract value from their data.

A **Splunk survey** of 1,300 global executives found that, on average, executives believe 55 percent of their organizations' data is "dark." Dark data is defined as all the unknown and untapped data generated by the various systems, devices, and interactions across an organization. Additionally, even though only 12 percent of respondents said their organizations are currently using artificial intelligence (AI), two-thirds plan on doing so within five years. However, they said the major impediment to implementing AI is understanding their own data.

Enter Data-Led Migrations

With the right tools and strategies, public sector organizations can use their data to become more agile, more efficient in delivering services, and more predictive in efforts to serve constituents. As such, data-led migrations can help forward-thinking organizations take a major step toward treating their data as a strategic asset.

Most organizations today are familiar with workload and application migrations, but data-led migrations are fundamentally different. They involve taking data from multiple on-premises sources and moving it to the cloud, often to a data lake. The next step is to apply analytics, AI and machine learning (ML) to the data, creating so-called smart data, that public sector organizations can use to make better, faster decisions.

Typically a data-led migration starts with moving data to cloud-based data lakes. These are highly available, secure, and flexible environments capable of storing massive data volumes from multiple sources and in multiple formats.

Some of the data will need to be cleansed, enriched, and then transformed, with previously configured security policies in place to protect it. Taking these steps, public sector organizations can create data lakes that serve as a single source of truth. The data is then made accessible to decision-makers throughout the organization, to perform advanced analytics and make use of AI and ML capabilities. The end result is more insight and greater value from data compared with that in a typical siloed on-premises environment.

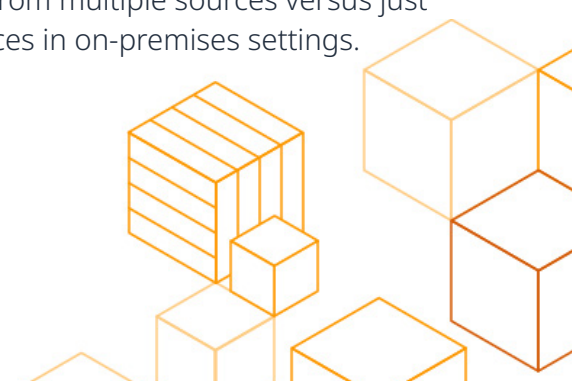
Amazon Web Services (AWS) and Data-Led Migrations

As the [world's leading cloud service provider](#), AWS houses data lakes from organizations of all kinds. Along with its broad and diverse partner community, AWS offers public sector organizations a fast, secure pathway to data-led migrations and broad organizational benefits.

AWS data-led migrations are faster than other types of cloud migrations, speeding up the time-to-value of smarter decision-making and improvements to constituent services. For example, it took the U.S. Citizenship and Immigration Services (USCIS) just one week to move 240 billion data rows to the AWS Cloud. The relatively low cost of AWS storage meant the agency didn't need to limit the amount of data it could keep. Rather, it more than doubled its data sources, from 30 to 75. Today, more than 7,000 analysts and data strategists are using USCIS data in AI and ML models and the agency boosted query speeds by 24 times.

In general, AWS customers migrate data four to six times faster and are able to scale far more effectively with a data-led migration than with a traditional workload and application migration.

AWS data-led migrations also clear the path for the broader use of ML capabilities by more knowledge workers and enable speedier predictive analytics capabilities. AWS offers the broadest portfolio of purpose-built analytics services tailored to the needs of individual public sector organizations and their departments. Moreover, analytics in a data-led migration produce far deeper insights into data than with other migrations because the AWS data lake holds data from multiple sources versus just one or two sources in on-premises settings.



AWS Data-Led Migration at Work in the Public Sector

Read below to learn how public sector organizations have reaped the benefits of an AWS data-led migration and transformed their data into a strategic asset.

- Working with an AWS Partner, military commanders created the Leader Dashboard. This tool lets leaders securely access data from hundreds of disparate data sources, including information on training databases, inventories of equipment and supplies, and personnel and maintenance records. By giving senior leaders access to critical data from multiple sources, the department can now make better and faster decisions about resource allocation and preparedness.
- An [AWS Advanced Partner in South America](#) worked with a Chilean crime prevention department to quickly migrate nine different data sources to a data lake on the AWS Cloud. The Partner then used its data analytics capabilities to speed up and simplify the sharing of public data with user-friendly data visualization tools. Information availability and access now takes just one day rather than a week. Department leaders have gained new and timely insights that have improved resource allocation and citizen protection while exposing various operational inefficiencies.
- While dealing with a recent humanitarian crisis, major cities in Colombia were struggling to gain insights into various logistical challenges as the nation worked to get lifesaving supplies where they were needed most. Cities kept data on a variety of spreadsheets, chalkboards, computer systems, and other often unstructured sources. The country also lacked the on-premises computing power needed to aggregate all these data sources. Working with AWS, Colombia migrated the data to a single-source AWS Cloud data lake and then applied advanced analytics to

the cleansed data. That streamlined emergency supply lines, enabling Colombian agencies to deliver vital resources exactly where they were needed, as quickly and efficiently as possible.

- In the recent groundbreaking Mars landing, all the data transmitted to earth by NASA's Perseverance rover was fed into an AWS data lake. Afterward, NASA applied sophisticated analytics to unlock secrets about the planet.
- As the second largest city in the United States, Los Angeles generates and collects some 240 million security records from more than 40 agencies every day. Working with an AWS Partner in a data-led migration, the city now uses real-time analysis of that data to fight pervasive cyberthreats and cyberattacks.

The AWS Partner Community

AWS has gathered a wide range of highly capable partners that work closely with AWS to make customers' data-led migrations as quick, seamless, and secure as possible. It also works to make sure migrations are ultimately beneficial in transforming data into a strategic asset.

Partners provide specific services as well as repeatable, scalable solutions for advanced analytics, data migration, AI and ML, and other capabilities. With AI and ML, partners make sure customers have the data quantity and quality, as well as a full set of data sources, to fully exploit ML models and AI functionality.

All AWS Data-Led Migration Partners come equipped with demonstrated AWS expertise and skill sets as well as experience specific to individual public sector organizations.

For information on AWS Data-Led Migration Partners, [click here](#).



Enterprise customers are looking for ways to tap into their entire portfolio of data. They want real-time access to build data analytics platforms and use data to power a more intelligent enterprise. Migrating to an enterprise-wide cloud data lake is an option, yet most companies face significant obstacles doing so themselves, including skills requirements and configuration complications. To help, **Accenture** has created an AWS Data Lake Accelerator that is based on leading AWS native practices and offers faster deployment at less cost. We have preconfigured the latest data ingestion services so customers can migrate data of any type and source quickly to the cloud. And, with our pre-configured ETL process, we can process data quickly, so customers have access to all the data required to power the intelligent enterprise.

Learn more [here](#).



Arkhotech is an expert consultancy company in information technology, which offers consulting services in application modernization, well-architected solutions and data analytics ecosystem. Our work enable businesses to take advantage of their own (big) data and cloud adoption.

Learn more [here](#).



At **BGH TechPartner** we provide professional services aimed at solving AWS Cloud infrastructure needs in different market segments. Cloud success depends on many factors, and having the right help and knowledge is certainly one of the most important. Therefore, it is essential to have a partner capable of overseeing the entire project to ensure its success and quickly adopt the cloud without unnecessary risks or additional expenses.

We offer Assessment, Analysis, Migration, and Monitoring Services, defining the best way to implement it from the different available AWS Cloud services. BGH Tech Partner will be responsible for supporting, managing, and monitoring its use in order to ensure that the AWS cloud is used in the most productive and economically possible way throughout different regions in Latin America and USA. We are committed to helping our customers to leverage AWS benefits.

Learn more [here](#).



Data is crucial for agencies seeking to reimagine their mission objectives and cloud migration requires a data intelligent approach. By using **Collibra** and AWS together, agencies can accelerate this migration and transform their organizations with meaningful data. With Collibra's automated data lineage, quality, catalog, profiling, and classification, agencies can get a complete understanding of their data assets. Together, AWS and Collibra give agencies a comprehensive view of data and its dependencies, so agencies unlock the value of their data and optimize technology investments.

Collibra is FedRAMP certified and hosted in AWS GovCloud to ensure that public agencies can maintain security and compliance with sensitive data, while using their data for transformative programs. Collibra and AWS empower agencies to be more strategic about cloud migration and achieve Data Intelligence.

Contact us to ensure your data becomes your most strategic asset.



Databricks and AWS help you move from on-premises data lakes to a cloud-based data and analytics platform. Our joint whitepaper “The Hidden Value of Hadoop Migration” is based on the experience of over a dozen joint customers who have migrated from on-premises Hadoop to Databricks on AWS. It includes a framework so you can estimate the impact on your organization in terms of licensing costs, productivity, and the ability to tackle game-changing analytics use cases that have a much bigger impact on revenue, risk and costs, making your analytics program the focal point of your organization.

Discover the benefits of migrating from Hadoop to a modern, cloud-based analytics platform.



Migration solutions for LMS in the AWS cloud that encompass architecture placed in multiple availability zones, with private subnets containing high-end instances and automated scaling, considering load balancing and paths for traffic redirection based on user profile. Using Aurora Serverless services with PostgreSQL database engine that facilitate data management and integrity in conjunction with Elastic File System services that help protect information.

To maintain information security and integrity, several perimeter and internal security services are integrated, as well as security certificates to encrypt information. We integrate services for automated periodic backup generation.

Learn more [here](#).



Nubiral is a boutique technology company with global reach, specialized in innovation and digital business transformation. With more than 10 years of experience in the market and more than 60 collaborators, Nubiral provides personalized solutions and professional services focused on IT Consulting, DevOps & Cloud and Data & Innovation.

In addition, it has more than 50 certifications from its strategic partners, 4 offices around the world and a portfolio of more than 100 customers. Our mission is to help companies adopt technologies to increase agility, reduce costs, maximize performance, and meet the challenges of the new digital age. Innovate today with Nubiral!

Learn more [here](#).



At **Servare** we specialize in consulting services for implementing, migrating, and optimizing AWS at the application, database, and ERP layers. We have migration strategies from APP to AWS, BD to AWS, and ERP to AWS, as well as Disaster Recovery solutions and Hybrid platforms. Accelerating AWS adoption, reducing risk, seeking operational excellence and maximizing the value of your investment.

Learn more about [migrations](#), [data](#), and [transformations](#).



Our QuickBkp Managed Backup Service is an enterprise-class backup solution that supports your team's information by integrating leading AWS Infrastructure-as-a-Service (IaaS) tools to ensure continuity of your operations in the event of a failure of your teams. Providing local and cloud support; managed by certified professionals responsible for full service monitoring and management.

Learn more [here](#).