



HEXAWARE

Data Lake Modernization with AWS for an Appliance Insurer

Breaking down data siloes with strategic data
modernization in Insurance

Case study

Client

| Client

Challenge

Solution

Benefits

Summary

Imagine having peace of mind knowing that your household appliances and electronics are protected by 24/7 support services and reliable insurance coverage in case of total breakdowns.

Established a century back, our client offers insurance, maintenance, and support for domestic products and consumer electronics across the UK in 10+ countries as a favored go-to source for warranty and service plans.

They earned their stripes by offering comprehensive support that shields their customers from unexpected breakdowns and repairs. Their dedication to innovation transcends meeting needs; they anticipate them, constantly evolve to deliver solutions, and keep their customers one step ahead.

Services Active in

10+ Countries



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Our client is responsible for safeguarding 20+ million products and orchestrating 3+ million appliance repairs or replacements annually, driven by an unwavering commitment to ensuring their customers' well-being is at the forefront of their initiatives.

Committed to customer satisfaction, they offered modern-day product insurance and maintenance services. However, with innovative offerings, its dynamic business operations were clouded with a massive influx of data that could be utilized to complement its new-age outlook.

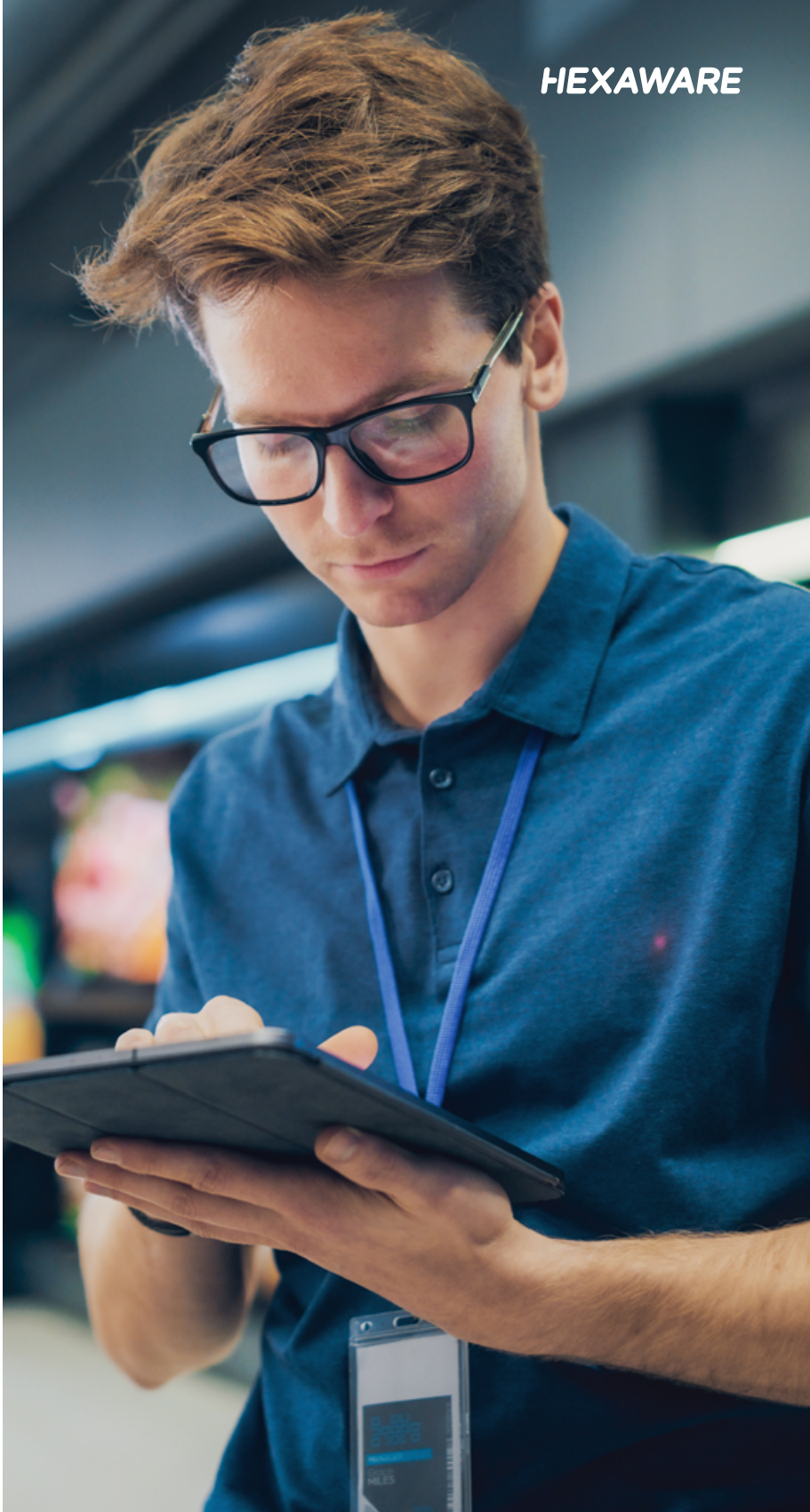
Data was essential for assessing risks, tailoring coverage plans, and swiftly addressing customer needs. Their product and sales teams depended on the data for campaigns, strategies, and innovation. Where a proactive approach to data analytics would enable them to anticipate customer needs, drive research for product development, and deliver data-driven insurance solutions, they were inept because of an unoptimized data ecosystem.

Their fragmented data infrastructure made it challenging to access information. In an industry where speed and personalized services are crucial, the lack of data accessibility posed significant barriers to leveraging advanced analytics and AI solutions, which are essential for staying competitive.

Operating with an on-premises legacy data platform, they faced:

- **Scalability Challenges:** The platform couldn't handle the growing volume of data, making it difficult to scale operations to meet increasing business demands.
- **Cost Inefficiency:** Licensing and maintenance of the data platform were prohibitively expensive, compounding the financial strain on the organization.
- **Innovation Roadblocks:** Difficulty in integrating the on-premises system with other platforms further compounded the problem, decreasing operational efficiency.

Recognizing the urgent need for a solution, our client sought a trusted partner to prepare them for the future, enabling their data landscape with the tools to set them apart. Creating a unified source of truth was the beginning; with Hexaware, they would also soon drive success with agile, data-driven strategies.



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Advancing the Visionary Outlook on Personalized Product Insurance

Our client’s vast operations had bottlenecked an unmanageable influx of data from diverse sources, including customer journeys, insured products, claims, appliance, third-party data, Salesforce CRMs, , and policy administration data, housed in their on-premises legacy data platform. Moreover, this data was stored in inaccessible silos within a fragmented landscape, hindering operational efficiency.

To tackle these challenges, we initiated our approach with a robust strategy, focusing on enabling our client’s long-term vision. Our first step was to redefine their perspective on data utilization. To renew their outlook on data, we charted a roadmap to help their vision of harnessing the power of advanced analytics and AI. We built a new data ecosystem that supports their drive to innovate in insurance.

To solve their challenges, we elevated their data and analytics ecosystem with four significant capabilities:

- [Real Time Data Processing](#)
- [Data Lake Implementation](#)
- [Centralized Data Catalog](#)
- [Monitoring and Optimization](#)

A New Data Ecosystem with AWS Cloud Services

We drove data modernization with AWS within our client’s data ecosystem. Navigating the transformation journey within AWS involves harnessing the suite of its powerful tools. AWS offers comprehensive services designed to overarch our roadmap to help build new data capabilities.

Real-time Data Processing

Within our client’s data ecosystem, we prioritized real-time data processing to enable swift decision-making, effective fraud detection, and prompt customer service responses.

This was achieved by utilizing:

- **Event Driven Architecture:** Amazon EventBridge provides scalable event-driven architecture, orchestrating workflows and integrating services across the cloud environment. Data uploaded in the source systems triggers a Lambda function that pushes the data to Amazon EventBridge.
- **Real-time Data Processing:** Amazon Kinesis facilitates real-time data capture and processing, enabling teams to ingest and analyze streaming data for immediate insights and actions. It plays a role in moving scheme and policy data to the Enterprise Data Lake.

Amazon EventBridge, backed by AWS Lambda orchestrates the movement of data using Amazon

Kinesis, ensuring that real-time data is funnelled to the Enterprise Data Lake.

Data Lake Implementation

We transformed and migrated historical data onto the data lake. Additionally, delta files/incremental data are loaded based on the frequency and scheduling of the feeds. This facilitates near-real-time data processing and analytics capabilities, empowering informed decision-making, fraud detection, and prompt responses to customer inquiries.

The transformation we drove and the AWS Cloud Services that enabled us:

- **Scalable Storage and Data Lake:** AWS S3, in conjunction with AWS Lake Formation, offers a highly scalable and durable storage solution for the data lake. This ensures the storage of vast amounts of structured and unstructured data cost-effectively, with high availability and durability.
- **Serverless Data Integration:** AWS Lambda offers serverless computing capabilities for data integration from multiple sources into AWS S3. Lambda helps execute code without provisioning or managing servers, saving costs. AWS Lambda extracts the data, partitions it, and converts the files into a standardized format.

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- **Data Integration Pipelines:** Developed with AWS Glue to ensure seamless collection, transformation, and loading of data from multiple sources into the central repository. PySpark is used to automate the data standardization and transformation process to accommodate various data requirements, such as including new records or updating previous ones.

This architecture transformed and migrated historical data onto the data lake, supporting regular updates with delta files/incremental data, thus establishing a comprehensive data management and storage solution.

Centralized Data Catalog

By building a unified data platform, our clients could establish a solid foundation for their AI and analytics initiatives. This single source of truth facilitates data integration across disparate sources, providing a unified view of data, ensuring comprehensive and high-quality data for training AI models, driving insights, and enhancing business outcomes.

The data governance capabilities we built and the AWS Cloud Services that enabled us:

- **Unified, Fortified Data Management:** AWS Lake Formation is a cornerstone solution for businesses aiming to streamline data lake management within the Amazon Web Services (AWS) ecosystem.

- It enabled fine-grained access control for our client's users, integrating with AWS Identity Access Management (IAM). Sensitive columns containing Publicly Identifiable Information (PII) can be restricted to authorized users only.
- **Data Catalog :** AWS Glue Catalog provides a centralized view of metadata that can be beneficial to users to search and discover datasets for their analytics, ML and ETL job needs. AWS Glue Crawler automatically extracts metadata information to populate the Glue Data Catalog.
 - **End User Data Accessibility:** With Amazon Athena, end-users can now easily access and analyze standardized and consolidated data, without managing any infrastructure.

The AWS Promise for Trusted, Seamless Data Operations
Leveraging the robust infrastructure and advanced capabilities offered by AWS, companies can achieve unparalleled efficiency, scalability, and flexibility in handling their data workflows. From data ingestion and storage to transformation, analytics, and governance, AWS provides a seamless and integrated ecosystem that empowers businesses to harness the full potential of their data assets.

Seamless data landscape management we orchestrated and the AWS Cloud Services that enabled us:

- **Monitoring and Management:** Amazon CloudWatch offers comprehensive monitoring and management capabilities for AWS resources and applications, including monitoring data pipelines, setting up alerts, and troubleshooting issues proactively.
- **Cost Management and Optimization:** AWS Cost Explorer helps manage and optimize cloud spending with customized reports of the environment and specific services, supported with tags for all the resources. This enables better cost control, ensuring efficient use of cloud resources.
- **Security and Access Control:** AWS Identity and Access Management IAM enables easy management of secure access to AWS services and resources, controlling permissions and enforcing security policies. This ensures data confidentiality and integrity and mitigates risks.

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At Hexaware, we don't just offer solutions; we align them precisely with our client's business goals. Our consultative and strategic approach to data ecosystem transformation empowered our clients to surpass their objectives of unparalleled customer satisfaction with innovative products on a large scale. Understanding their challenges enabled us to craft a tailored roadmap seamlessly integrated with their strategic vision. From strengthening risk management to expediting time-to-market for innovative data-first services, our client benefits from tangible business outcomes.

Hexaware's AWS Service Benefits

A single source of truth to drive results faster

A centralized data repository dismantles silos, forging a nexus of policy data to guide comprehensive marketing strategies, informed decision-making, and underwriting strategies..

Real-time risk radar for better customer experience

Access to real-time data enhances risk assessment and mitigation for our insurance clients, elevating customer care experiences and insurance service reliability..

Data-driven market agility

Faster time-to-market built over consolidated data fuels the insurance company's agility, empowering it to seize market opportunities.

DaaS insights for business analysts

Unified data accessibility through Data as a Service (DaaS) empowers business analysts with insights, fueling strategic initiatives and product refinement..

Risk reduction with zero data errors

Data process standardization becomes the cornerstone of risk mitigation, providing a shield against uncertainties in insurance data management.

Enterprise-wide data process standardization

Achieve data process standardization, ensuring uniformity and reliability across operations for enhanced decision-making.

Accelerated service innovation pipelines

Accelerated automation drives data pipeline development by 70%, propelling the insurance company towards agile policy innovation and adaptation.

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In product insurance, where the demands of data proliferation is skyrocketing, we understand that success hinges on more than just a solution—it requires a strategic transformation of the data ecosystem to help address future challenges. That’s why we didn’t just focus on implementation; we looked to nurture our client’s vision for the future.

We’re here to fortify readiness for the distributed cloud paradigm, ensuring that scalability and adaptability remain seamless. As an AWS Advanced Tier Partner, we’re laying down a foundation that meets current needs and anticipates and accommodates future growth. Together, we relentlessly innovate with you, ensuring the journey toward success is possible and transformational at every turn.



About Hexaware

Hexaware is a global technology and business process services company. Our 27,000 Hexawarians wake up every day with a singular purpose; to create smiles through great people and technology. With this purpose gaining momentum, we are well on our way to realizing our vision of being the most loved digital transformation partner in the world. We also seek to protect the planet and build a better tomorrow for our customers, employees, partners, investors, and the communities in which we operate.

With 40+ offices in 19 countries, we empower enterprises worldwide to realize digital transformation at scale and speed by partnering with them to build, transform, run, and optimize their technology and business processes.

Learn more about Hexaware at www.hexaware.com.

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