

Industry: BFSI

Established in 1994, the client is a leading financial institution known for its comprehensive range of banking and financial services. Headquartered in India, the bank has emerged as a prominent player in private banking, serving a diverse clientele including individuals, businesses, and corporations. With a strong commitment to innovation, the BFSI giant continually adopts cutting-edge technologies to enhance customer experiences, offering a spectrum of services including retail banking, corporate banking, wealth management, and insurance.

Business Challenges

The client faced analytical challenges and the need to adapt swiftly to dynamic market conditions in the competitive financial sector.

Solution

- CDWT utilized Power BI to create performance reports featuring side-by-side maps comparing the client's data with market data.
- The Power BI report allowed users to drill down from state to district and pin code levels, enabling dynamic selection of KPIs for real-time insights to business end-users.
- Azure Data Factory facilitated data ingestion from diverse sources to the cloud data warehouse (Azure Synapse), enabling Power BI to generate daily and weekly production reports using the collected data.

Technologies Used

The project utilized Power BI for performance reporting and Azure Data Factory for data integration into Azure Synapse.

Business Impacts

By embracing advanced analytics, the leading bank not only addressed its analytical challenges but also positioned itself as an industry innovator. The successful implementation of these technologies improved internal processes and enhanced the bank's ability to respond swiftly to market dynamics, establishing a benchmark for data-driven excellence in the financial sector.

Industry: Telecommunications

The client, an Indian telecommunications company, operates across more than 200 countries and territories worldwide. It offers a range of network services and software-defined network platforms including Ethernet, SD-WAN, Content Delivery Network (CDN), Internet, Multiprotocol Label Switching (MPLS), and Private Line. Notably, the company has invested \$1.19 billion in its global subsea fiber network.

Business Scenario

The company manages multiple enterprise solutions for HR and management, each lacking single sign-on capability and intercommunication between systems. Accessing multiple systems is time-consuming due to separate logins and disparate interfaces, which complicates operations and reduces efficiency.

Challenges

- Inefficient user management software.
- Cloud resource monitoring.
- Security concerns during development.
- Management of multiple microservices.
- Lack of version control.
- Manual deployment processes.
- Extended time-to-market.
- Delayed patch deployments.
- Absence of single sign-on access.

Solutions

CDWT integrated DevOps practices into the application portfolio, deploying a strategy tailored to enhance application specifications and efficiency:

- Automated repetitive tasks using Azure DevOps for version control, CI/CD pipelines, and Azure Service Fabric.
- Implemented metrics generation and tracking to minimize failure rates and expedite issue resolution.

Business Impacts

- Significantly reduced manual deployment times.
- Decreased average failure rates.
- Expedited environment and infrastructure provisioning times.
- Achieved a 60% reduction in time-to-market.

Solution Highlights

The CDWT team utilized an extensive tool stack to design and manage Continuous Integration/Continuous Delivery (CI/CD) pipelines using Azure DevOps (CI/CD/VCS) and SQL databases. Additional technologies included Azure Monitor for infrastructure monitoring, SonarQube for code quality assurance, and Azure Key Vault and JWT for enhanced application security. Automated CI/CD pipelines were deployed with Azure Service Fabric as the container orchestrator, supporting Azure iPaaS, Docker-based projects, and other Azure Service Fabric systems.

The collaborative effort between CDWT and the client in implementing Azure DevOps solutions led to substantial improvements in development processes, software quality, and operational efficiency. The telecommunications company is now better equipped to meet the demands of its expanding customer base and maintain competitiveness in the industry.

Industry: Energy

The client is a leading global conglomerate in the natural resources sector, with a diversified portfolio spanning key sectors including aluminum, zinc-lead-silver, oil and gas, iron ore, steel, copper, power, ferro alloys, nickel, semiconductor, and glass. Their strategic assets are strategically located across India, South Africa, Namibia, and Liberia, positioning them to deliver long-term value and robust cash flows.

Business Challenges

The client faced significant challenges in optimizing their supply chain management processes across various sectors within their diversified portfolio.

Solutions

CDWT utilized Microsoft tools and services to develop an end-to-end supply chain management solution:

- Implemented a virtual control tower for real-time tracking, visibility, and material control.
- Enhanced planning and procurement activities with intelligent chartering and dispatching features.
- Employed constraint-based optimization in the control tower to reduce demurrage charges and analyze associated costs.
- Optimized dependent processes to minimize demurrages and improve overall supply chain efficiency.
- Provided real-time data visualization for effective communication with partners and suppliers, including business KPIs on Power BI dashboards accessible via mobile devices.

Technologies Used

The project leveraged Microsoft tools, including Power BI for data visualization, and employed constraint-based optimization techniques for supply chain efficiency improvements.

Business Impacts

- Supply chain process visibility improved significantly post-implementation of the Control Tower.
- Substantial reduction in demurrage costs and dollars per ton.
- Enhanced quarter-wise visibility on alumina/bauxite stock for managing domestic and importing needs.
- Improved procurement decision-making through seasonal and external factors analysis.
- Optimized resource allocation for effective rake planning and scheduling, minimizing logistic leakages.

- Accelerated growth and realization of new opportunities, establishing a competitive advantage in the industry.

Conclusion

The collaboration between the multinational mining company and CDWT revolutionized supply chain management through advanced technology and analytics. The implementation of the Supply Chain Control Tower optimized operations, leading to a more cost-effective, sustainable, and resilient supply chain. This transformation empowered the client to maintain leadership in the global mining industry.

Industry: FMCG

Our customer is a global enterprise recognized as one of the largest manufacturers and promoters of tobacco, cigarettes, and related products worldwide. Headquartered in Henrico County, Virginia, near Richmond, its operations span across the globe.

Business Challenges

The client faced challenges with storing and managing large volumes of data amounting to petabytes using Teradata. Data transformations and analytics were performed using Teradata BEx queries. Key challenges included high licensing costs, complex error handling and resolution processes, and the inability to downscale resources efficiently post-business functionality completion.

Solutions

- CDWT proposed migrating data from the Teradata platform to a more cost-effective and scalable solution.
- Implemented migration to Azure Cloud to leverage improved scalability and cost-efficiency.
- Utilized Azure Data Lake for enhanced error handling, debugging capabilities, and flexible resource scaling based on business needs.

Technologies Used

The migration project leveraged Azure Cloud services, specifically Azure Data Lake, for enhanced data processing capabilities and cost efficiency.

Business Impacts

- Achieved approximately 30% reduction in operational costs post-migration to Azure Cloud.
- Reduced the size of ETL code by nearly 30%, simplifying data processing and management.
- Enhanced error handling and debugging capabilities with Azure Data Lake.
- Enabled flexible resource scaling aligned with business requirements, eliminating upfront IT investments.

The successful migration of the client’s data from Teradata to Azure Data Lake by CDWT significantly reduced operational expenses and established a more agile and scalable data infrastructure. This transformation empowered the client with advanced data analytics capabilities, facilitating informed, real-time decision-making and positioning them for future growth and success in the FMCG industry.

Industry: ITES

The client specializes in advanced sales, distribution, and service management software known for its user-friendly interface and intuitive design. Their product suite includes a comprehensive automotive dealer management system, sales and distribution management, and service management software.

Business Challenges

The client faced challenges in integrating data-driven solutions to enhance inventory management and predictive analysis capabilities.

Solutions

CDWT assisted the firm in overcoming their challenges with robust data-driven solutions leveraging Azure ML/AI and Power BI:

- Established a central data repository using Azure SQL Database and container services for flexible deployment options.
- Implemented Azure ML Studio for predictive analysis to forecast spare part consumption dealer-wise and vehicle-wise based on historical data.
- Developed interactive dashboards using Power BI to visualize, analyze, and share critical business insights from raw and unstructured data.

Technologies Used

The project utilized Azure ML/AI for predictive analysis and Power BI for interactive dashboard development.

Business Impacts

CDWT's solution revolutionized the client's inventory management with an all-in-one solution for demand forecasting and predictive analysis:

- Achieved 85% accuracy in spare parts consumption forecasting by vehicle model, ensuring timely inventory stocking.
- Attained 85% accuracy in capacity-based service predictions, preventing missed deadlines and customer dissatisfaction.
- Optimized inventory throughout the supply chain, enhancing operational efficiency and meeting demand effectively.

Through collaboration with CDWT, the leading tech innovator leveraged data-driven AI and ML capabilities to transform inventory forecasting and management. This initiative resulted in

heightened forecast accuracy, operational efficiency gains, and a significant competitive edge in the global technology market.

Industry: Healthcare Solutions

Client Overview

Our client is a pioneering pharmaceutical company renowned for its innovative approach in providing affordable and essential medications globally. With a presence in 85 countries, including significant operations across 45 European nations, the company specializes in developing, manufacturing, and distributing cost-effective pharmaceutical solutions.

Business Challenges

The client encountered several challenges in optimizing their pricing strategy and improving data governance:

- Over-reliance on Excel sheets for transactional and customer data processing.
- Need for a robust data infrastructure to store, process, and analyze organizational data effectively.
- Compliance issues related to UK/EU General Data Protection Regulation (GDPR).
- Manual and inefficient monthly pricing analysis, compounded by a growing number of Stock Keeping Units (SKUs).
- Dependence on historical sales data, resulting in delayed responses to market dynamics.

Solutions

CDWT proposed and implemented innovative solutions to address these challenges:

- Deployed advanced machine learning models to analyze historical and real-time data for optimal pricing decisions, event identification, SKU prioritization, and gross margin enhancement.
- Leveraged Azure services for scalability and ensured GDPR compliance.
- Implemented Power BI for comprehensive sales reporting and data visualization.

Technologies Used

The project leveraged cutting-edge technologies including advanced machine learning models, Azure services for scalability and compliance, and Power BI for intuitive data visualization.

Business Impacts

The solution delivered by CDWT resulted in substantial business benefits:

- Optimized pricing strategies that maximized revenue and sales effectiveness.
- Improved scalability and agility in deriving actionable insights, facilitating more effective marketing strategies.
- Enhanced employee productivity through automation, enabling deeper insights into customer behavior and sales trends.

- Maximization of sales opportunities and overall profitability for the pharmaceutical company.

Through collaboration with CDWT, the pharmaceutical leader utilized advanced pricing analytics to bolster sales effectiveness and profitability, thereby establishing a competitive advantage in the healthcare solutions sector.

Industry: Healthcare

Established in 1987, our client is India’s foremost omnichannel branded pharmacy retail network, operating a vast network of 5,000 pharmacy stores serving over 13,000 pin codes. Committed to providing round-the-clock access to genuine life-saving and over-the-counter medications, the company holds International Quality Certification, prioritizing consumer safety by combatting counterfeit drugs.

Business Challenges

The client faced several challenges in inventory management and operational efficiency:

- Manual inventory tracking across various software and spreadsheets, leading to time-consuming processes prone to errors.
- Dynamic customer demand requiring agile inventory management to avoid overstock and stockouts.
- The need to migrate to the cloud and establish an analytics environment on the Azure platform for enhanced operational insights.

Solutions

- Implemented Self-Hosted Integration Runtime on an Azure VM for seamless connectivity between on-premises SQL servers and Azure Data Factory.
- Utilized Azure Data Factory to integrate structured and unstructured data into Azure Data Lake Storage Gen2 and Azure Synapse SQL Dedicated Pool.
- Established Azure Purview for comprehensive data governance over Azure Storage, Azure Data Factory, and Azure Synapse.

Business Impacts

The migration to Azure cloud yielded significant benefits:

- Enhanced inventory control management, minimizing manual interventions and ensuring secure operations.
- Accelerated KPI tracking and reporting frequency from 50 minutes to 3 minutes, providing real-time insights for informed decision-making.
- Synchronized real-time monitoring of warehouse and supplier inventory, optimizing supply chain efficiency.
- Achieved a remarkable 96% improvement in inventory fulfillment and replenishment, enhancing customer satisfaction and reducing operational costs.

By partnering with CDWT and leveraging Azure Synapse, the client achieved substantial improvements in operational efficiency and customer satisfaction, reinforcing its leadership in the healthcare retail sector.

Industry: Oil & Gas

Our client stands as a global leader in the natural resources sector, specializing in aluminium, zinc-lead-silver, oil and gas, iron ore, steel, copper, power, ferroalloys, nickel, semiconductors, and glass. With strategically positioned world-class assets in India, South Africa, Namibia, and Liberia, the company is well-positioned to deliver sustainable value and maintain robust cash flows over the long term.

Business Challenges

The client faced significant challenges in optimizing their supply chain and enhancing operational efficiency:

- Limited visibility and control over the supply chain.
- High demurrage charges due to inefficient material handling and logistics.
- Ineffective communication and collaboration with partners and suppliers.

Solutions

- Implemented a Virtual Supply Chain Control Tower by CDWT for real-time material tracking, visibility, and control, offering insights into planning, procurement, intelligent chartering, and dispatching of materials.
- Utilized constraint-based optimization to identify and mitigate factors contributing to high demurrage costs, including leakage costs, punitive charges, dead freight, and demurrages.
- Enhanced real-time data visualization capabilities for improved communication with partners and suppliers, and provided business KPI insights through Power BI dashboards.

Technologies Used

The project leveraged advanced analytics and visualization technologies, including Virtual Supply Chain Control Tower, constraint-based optimization, real-time data visualization, and Power BI dashboards.

Business Impacts

The implementation of augmented analytics and supply chain optimization solutions delivered substantial business benefits:

- Achieved a 10X improvement in supply chain visibility, enabling better decision-making and operational efficiency.
- Quarterly visibility into Alumina/Bauxite stock facilitated effective management of domestic and import requirements.
- Reduced demurrage costs by 3 CR quarterly through optimized resource planning and scheduling.

The partnership between the client and CDWT, along with the adoption of cutting-edge technologies, transformed their supply chain operations. By enhancing visibility, optimizing resources, and reducing costs, the company reaffirmed its position as a leading player in the global mining industry, well-prepared to meet future challenges.

Industry: Energy & Utilities

Client Overview:

A leading integrated power enterprise in India, involved in conventional and renewable energy, power services, and innovative customer solutions such as solar rooftop installations, EV charging stations, and home automation. The company, including its subsidiaries and joint ventures, boasts a total generation capacity of 12,772 MW, with 30% sourced sustainably.

Business Challenges:

The client faced inefficiencies with manual testing of solar panels during quality checks, resulting in increased operational costs and potential errors.

Solutions:

CDWT implemented an advanced AI-driven solution to automate solar panel inference, leveraging Azure Data Factory for data flow and Azure Kubernetes Service (AKS) for hosting the inference pipeline. This involved uploading data to Azure Blob Storage, processing it through custom vision models and inference modules, and storing results in Cosmos DB for user interface integration.

Technologies Used:

- Azure Data Factory
- Azure Functions
- Azure Kubernetes Service (AKS)
- Cosmos DB
- Custom vision models

Business Impacts:

The collaboration between the prominent power company and CDWT to automate solar panel inference with AI technology has significantly enhanced operational efficiency, reduced costs, and improved sustainability of the solar panel infrastructure.

Industry: Retail & CPG

Client Overview:

A subsidiary of a business conglomerate, our client is a key player in revolutionizing the Indian retail landscape through digital transformation. Established in 2019, the retail giant aims to enhance online shopping experiences while supporting local retailers and businesses.

Business Challenges:

The client's e-commerce platform served as the initial touchpoint for customer interactions, concluding through collaborations with brand partners. They operated multiple platforms for various functions such as loyalty, campaigns, login, customer journey, and customer service.

They sought to establish a Digital Hub—a centralized repository for comprehensive dashboards providing business insights and limited drill-down capabilities for the product team.

Solutions:

CDWT developed robust data pipelines integrating multiple sources into Delta Lake in raw format, later transformed for analysis and visualization purposes.

Data sources included DWH, Adobe, Branch, Qualtrics, Capillary, InstaCC, Freshdesk, Full Story, and Golden Records, encompassing clickstream data, app data, loyalty data, call logs, and transactional data.

Transformed data was utilized in Power BI to create various dashboards including Loyalty, Offers, Brand Offers, CEO, Sales, Traffic Analysis, and Content, each tailored to visualize KPIs and graphs as per client specifications.

Technologies Used:

- Delta Lake
- Power BI

Business Impacts:

The implementation of a centralized Digital Hub for dashboards and visualizations, in collaboration with CDWT, marked a significant milestone for the retail leader. By enhancing their data-driven capabilities and streamlining analytics processes, they bolstered competitiveness, agility, and responsiveness to market dynamics. This transformation solidifies their position as a forward-thinking and data-savvy retail leader in a rapidly evolving industry.

Industry: Retail & CPG

Client Overview:

A subsidiary of a prominent global corporation, our client is India's foremost manufacturer and retailer of branded fashion apparel. They offer a diverse range of top international fashion brands for men, women, and children, with an extensive retail network comprising at least 3,977 stores and a significant presence in approximately 33,535 multi-brand outlets and 6,723 points of sale within department stores across India.

Business Challenges:

The leading fashion retail giant sought a data-driven solution to extract relevant entities and key-value pairs from the quarterly financial statements of various BSE-listed companies.

They aimed to automate data extraction to reduce turnaround time and manpower efforts significantly.

The client aimed to harness customer analytics and merchandise analytics to enhance profitability and enrich the overall customer experience.

Solutions:

CDWT implemented an automated solution for extracting and visualizing data from quarterly financial statements, eliminating manual processes and reducing turnaround time and manpower requirements.

Technologies Used:

- Azure solutions for advanced analytics

Business Impacts:

The adoption of CDWT's automated solution streamlined operations by automating data extraction and visualization processes, thereby reducing turnaround time and manpower efforts.

The client gained a comprehensive 360-degree view of customer and merchandise insights, enhancing their ability to make informed business decisions.

Interactive data visualization through Power BI dashboards provided intuitive insights into financial data and customer behavior.

The collaborative implementation of Azure solutions by CDWT and the fashion retail giant has positioned the client as a leader in the dynamic fashion retail industry, equipped with advanced analytics capabilities to drive profitability and customer satisfaction.

Industry: BFSI

Client Overview:

Our client is a leading private life insurance company in India, renowned for offering a diverse range of innovative products. Their offerings cater to the long-term life goals of customers, spanning protection, wealth creation, retirement solutions, and more. With a robust network of 509 branches and over 1,17,700 agents, they empower over 2.87 crore individuals and manage assets totaling more than Rs. 89,446 crores.

Business Challenges:

The client relied on a traditional data warehouse as a central repository, which posed challenges in terms of flexibility, agility, and scalability.

Their existing infrastructure, designed for on-premises hardware, lacked the capability to efficiently handle computing tasks like data exploration and high concurrency.

The cost of third-party CDC (Change Data Capture) tools for data capture from sources through logs was becoming prohibitive.

Solutions:

Data was initially uploaded to the source storage/data store.

Data flowed through HVR to the Staging Blob, enabling replication and activating the change data capture method before loading into Azure Data Lake Storage.

Azure Databricks was utilized to create a Silver layer accommodating Truncate/Insert, Change Data Capture, and One-time load types.

A Gold layer was implemented on top of the Silver layer, incorporating business logic.

An external table was established in Azure Synapse Analytics serverless pool to facilitate ad-hoc query analysis.

A Power BI dashboard was developed based on the Gold layer architecture to enhance data visualization capabilities.

Technologies Used:

- Azure Data Lake Storage
- Azure Databricks
- Azure Synapse Analytics
- Power BI

Key Achievements:

- **Single Source of Truth:** Centralized data platform aggregating information from multiple sources for informed decision-making.
- **Data-Driven Insights:** Extract actionable insights by integrating disparate data into Power BI dashboards.
- **Ease of Setup:** Efficient handling of data volume with Fivetran/HVR & Azure setup.
- **High Performance:** Robust data handling capabilities of Databricks for various data volumes, types, and structures.

Business Impact:

The collaborative effort between CDWT and the insurance firm to migrate from an on-premises data warehouse to a cloud-based solution showcases the transformative power of modern technology in the insurance sector. By embracing scalability, accessibility, and cost-effectiveness in the cloud, the firm positioned itself for future growth, operational efficiency, enhanced data security, and compliance.

Industry: BFSI

Client Overview:

Our client serves as the holding company for the financial services divisions of a global Fortune 500 conglomerate. It offers comprehensive financial solutions tailored to meet the diverse needs of customers throughout their life stages. With a workforce exceeding 22,000 employees, the client's subsidiaries maintain a widespread presence with over 850 branches, more than 2,00,000 agents and channel partners, and numerous bank partnerships.

Business Challenges:

The client operated multiple verticals within its organization, each maintaining isolated data islands and generating separate reports. This disjointed reporting structure prevented the group CEO from accessing consolidated business views, relying instead on disparate MIS reports for decision-making.

Each vertical utilized different data sources and complex models, complicating data integration processes. Reports were predominantly tabular and created manually in Excel, which was time-consuming and inefficient for extracting insights. Moreover, varying update frequencies for metrics across different reports necessitated separate distribution.

This decentralized data and reporting framework hindered employee productivity and delayed decision-making processes.

Solutions:

CDWT designed a comprehensive data integration and reporting solution leveraging Azure Synapse, Power BI, and customized business rules.

A centralized repository was developed using Azure Synapse, capable of modern functionalities. Terabytes of data were extracted from disparate datasets and consolidated into a unified data warehouse.

Azure Data Factory facilitated efficient data extraction and loading into Azure Synapse from sources including Teradata, HFM, SQL, and Excel, ensuring swift processing.

Staging and Reporting layers were established atop the data warehouse. These layers served as the foundation for developing Power BI reports that compared subsidiary performances, conducted what-if analyses, and displayed actionable metrics in real-time. Comprehensive dashboards provided holistic views of all verticals, eliminating fragmented reporting structures.

Technologies Used:

- Azure Synapse
- Azure Data Factory
- Power BI

Business Impacts:

CDWT's collaboration with the BFSI giant in deploying a Power BI solution revolutionized their data landscape from disjointed and complex to unified and insightful. By dismantling data silos, enabling real-time analytics, and promoting data-driven decision-making, the client achieved enhanced operational efficiency, cost reductions, and a distinct competitive edge in a dynamic industry.

Industry: Manufacturing

Client Overview:

Our client stands as one of India's largest manufacturers of grey cement, ready-mix concrete (RMC), and white cement, boasting an impressive installed capacity of 116.75 million tons per annum. The organization operates 23 integrated plants, 1 clinkerization plant, 26 grinding units, and 7 bulk terminals across India, UAE, Bahrain, and Sri Lanka.

Business Challenges:

The client faced significant challenges in optimizing manufacturing operations and ensuring seamless collaboration across their diverse facilities.

Solutions:

CDWT played a pivotal role in the client's journey by leveraging their expertise in implementing Industry 4.0 solutions using state-of-the-art technologies.

Technologies Used:

- Azure Data Lake Storage Gen 2 (ADLS Gen 2)
- Azure Data Explorer (ADX)
- Azure IoT Hub
- Azure Data Factory

Key KPIs:

- **Connected Remote Assets:** Implemented process automation and optimization to remotely manage factory units.
- **Security:** Simplified user permission management through an admin portal for enhanced security.
- **Seamless Collaboration:** Enabled machine learning and artificial intelligence to connect operators across different silos.
- **Real-time Monitoring:** Enhanced safety through real-time monitoring and predictive maintenance.

Business Impacts:

- **5X Reduction in Manufacturing Risk**
- **3X Increase in Efficiency**
- **70% Enhanced Visibility**
- **50% Decrease in Operational Costs**

By harnessing real-time data and IIoT technologies, a leading cement manufacturer successfully transformed its operations. The proactive approach to maintenance, consistent improvement in product quality, and optimization of operational efficiency not only bolstered profitability but also positioned the company as a market leader.

Industry: Hospitality

Client Overview:

Headquartered in San Marcos, California, our client specializes in developing and managing high-end resorts and timeshare properties across the United States and Mexico. They are renowned for their innovative approach and strong commitment to hospitality, making significant strides in the vacation ownership sector.

Business Scenario:

The client faced challenges stemming from interface heterogeneity and outdated system processes, including hard coupling and limited support for triggers beyond time-based events.

Challenges:

- Shorter development cycles and faster innovation
- Reduce implementation failures and recovery time
- Improve communication and collaboration
- Increase efficiency while reducing costs and IT headcount

Solutions:

CDWT implemented a comprehensive solution to address these challenges:

- Developed reusable APIs with a hierarchical and unified interface for future use.
- Improved documentation and monitoring for developer-friendliness.
- Decoupled and modular architecture for flexibility and scalability.
- Implemented full life-cycle management of APIs with centralized orchestration and monitoring.
- Achieved elastic scalability, managed upgrades, and ensured high availability.

Outcomes:

- Accelerated delivery of new updates to market by 50%.
- Reduced risk of downtime to 0.1%.
- Improved system reliability and reduced error-prone processes.
- Significant reduction in server hosting costs.
- Increased overall operational efficiency.

Benefits:

- Enhanced processes across IT and teams through automation.
- Increased team flexibility, agility, and engagement.
- Encouraged cross-skilling and self-improvement among teams.
- Fostered collaborative working environment.

- Improved operational support and faster issue resolution.

Solution Highlights:

Using Azure DevOps, CDWT successfully addressed interface heterogeneity and modernized the client's data systems:

- Implemented Azure DevOps pipelines for seamless deployment of modules and services on Function Apps.
- Automated testing using Azure DevOps Test Plans to ensure reliable application performance.
- Utilized Azure Repos for version-controlled source code management, enabling efficient collaboration and error resolution.
- Enabled continuous integration and continuous deployment (CI/CD) with Azure Resource Manager, ensuring rapid and reliable deployment of new code.

The collaboration between CDWT and the client exemplifies how modernizing interfaces and automating data integration can significantly enhance efficiency and operational excellence in the hospitality industry.

Industry: BFSI

Client Overview:

Our client is a leading general insurance provider in India, offering a comprehensive range of insurance products including auto, health, home, property, travel, marine, commercial, and specialized options. They serve a diverse customer base, including individuals, businesses, and SMEs, with a widespread network of 143 offices and a dedicated team of over 30,500 intermediaries across India.

Business Challenges:

The company aimed to automate the manual inspection of damaged car parts to streamline claim processing, reduce human effort, and enhance accuracy and speed.

Our Solution:

CDWT's Automated Vehicle Damage Detection solution leverages Azure Databricks, Azure Blob Storage, and advanced computer vision techniques to revolutionize insurance claim assessments:

- Utilized Azure Databricks and Azure Blob Storage for data processing and storage.
- Implemented a combination of Azure Custom Vision models and a custom YOLO-V3 model for precise vehicle damage detection.
- Customized computer vision solutions tailored to client requirements, ensuring high accuracy in claim assessments.
- Automated claim calculation based on detected damages, eliminating manual intervention and improving efficiency.

Why Customers Use Automated Vehicle Damage Detection:

- **Compute on Demand:** Utilizes Azure Databricks with Spark engine for flexible, scalable data processing.
- **Time and Cost Savings:** Reduces inspection time and costs associated with manual assessments.
- **Error Elimination:** Minimizes human error in claim evaluations.
- **Swift Claim Processing:** Accelerates claim processing times to seconds.
- **End-to-End Solution:** Provides a comprehensive solution from damage detection to claim calculation.

Key Features:

- **Compute on Demand:** Scheduled Azure Databricks Notebooks enable efficient data processing with Python and SQL capabilities.
- **Secured Data Handling:** Ensures data security and compatibility across various data sources.

- **Automated Processing:** Automatically assesses claims by detecting car part damages, improving accuracy with continuous learning.

Business Impact:

The implementation of CDWT's automated vehicle damage detection and claim processing system has revolutionized our client's insurance operations. By integrating advanced technology and artificial intelligence, the company has achieved remarkable gains in operational efficiency and enhanced customer satisfaction.

Industry: Manufacturing

Client Overview

One of the largest paint manufacturers in North America, this U.S.-based company supplies paints to various global retailers and distributors. Their enduring success over a century is driven by their dedication to color, technology, innovation, and leadership.

Business Scenario

- Limited to manual access.
- Independent solutions with specific functions.
- Disconnected enterprise systems without integration.

Scope

Partnering with BMC, the company launched a program focused on consolidating code and migrating on-premises applications to Microsoft Azure Cloud. Their objectives included streamlining service delivery, enhancing storage and compute resource management, and accelerating global customer onboarding. The initiative aimed to modernize applications and operations using Azure DevOps to reduce maintenance and management costs.

Challenges

- Slow data processing via FTP for SAP HANA transactions.
- Gaps in the supplier outreach platform linked to on-premises infrastructure.
- Challenges in employee management, including scheduling and staffing.

Solutions

- Integrated platform for multiple systems.
- Automated communication between systems.
- Utilization of Azure DevOps tools, including Azure Boards, for employee management.
- Version control enabled through Azure Repos.
- Implementation of advanced CI/CD pipelines using Azure DevOps.

Outcomes

- 50% faster deployment of new updates to the market.
- Reduced downtime risk to 0.1%.
- Decreased system errors.
- Lower costs for server management.
- Improved operational efficiency.

Benefits

- Application version control.
- Enhanced employee productivity management through Azure Boards.
- Reduction in manual workload.
- Developer-friendly documentation.
- Simplified monitoring.
- High availability.
- Enhanced CI/CD pipelines.
- Scalable upgrades and availability.

Project Highlights

CDWT meticulously tackled technical challenges and on-premises application issues for BMC, optimizing costs through Azure DevOps adoption. They enhanced development and operational processes with advanced CI/CD pipelines, resulting in an enhanced BMC application version with innovative features. The collaboration between BMC, a leading North American paint manufacturer, and CDWT underscores the transformative impact of cloud migration on critical business applications. The successful transition to Azure significantly improved performance, scalability, and disaster recovery capabilities.

Industry: ITES

Client Overview:

Established in 2007, our client is a dynamic and innovative technology company specializing in services across diverse domains such as automotive and e-commerce. They facilitate seamless connections between buyers and sellers, simplifying decision-making processes for consumers.

AWS Capabilities

Our lead scoring solution integrates data from the Lead Management System, clickstreams, lead call details, Jupyter notebooks, and advanced Boosting methods to enhance existing Lead Scoring Systems.

We customize Lead Scoring solutions tailored to customer requirements, leveraging extensive data sources, robust analysis, feature engineering, and intuitive dashboards for actionable insights.

Analytics Capabilities with Dashboards

- Modern analytics capabilities
- No licensing costs

Compute on Demand

- Customized lead scoring solutions
- Scheduled Jupyter Notebooks

Secured Data

- Enhanced security
- Compatible with various data sources

Why Customers Use Lead Scoring?

- Align sales and marketing teams
- Enhance revenue-driving activities by optimizing lead flow, productivity, and efficiency between marketing and sales teams.
- Traditional heuristic-based techniques were limited in incorporating multiple variables.

Business Challenges:

Objective: To effectively score leads based on both online and offline user activities, distinguishing between hot, warm, and cold leads to optimize the business model.

Our Solution:

Through extensive analysis and pattern recognition across diverse data sources, combined with the application of advanced Boosting algorithms, we exceeded customer expectations.

Business Impact:

The implementation of our lead scoring solution has had a profound impact on our client's operations and outcomes:

1. **Enhanced Sales and Marketing Alignment:**
 - Our lead scoring solution effectively aligns sales and marketing teams by streamlining lead flow and enhancing productivity. This alignment ensures that activities driving revenue are prioritized, leading to increased efficiency across the board.
2. **Improved Decision-Making with Advanced Analytics:**
 - By integrating advanced analytics capabilities and intuitive dashboards, our solution empowers business teams to visualize patterns and insights more effectively. This capability enables quicker and more informed decision-making processes, ensuring proactive adjustments to marketing and sales strategies.
3. **Optimized ROI with Data-Driven Insights:**
 - Traditional heuristic-based approaches are replaced with data-driven methodologies, allowing for a more nuanced understanding of lead behaviors. This enhancement enables our client to prioritize high-potential leads (hot leads) over others (cold leads), thereby maximizing return on investment (ROI) from marketing and sales efforts.
4. **Scalable and Secure Data Infrastructure:**
 - Leveraging AWS capabilities, including compute on demand and enhanced data security, our solution ensures scalability and robustness. This infrastructure supports seamless integration with various data sources, enhancing operational agility and compliance with data security standards.
5. **Accelerated Innovation and Adaptability:**
 - The adoption of scheduled Jupyter Notebooks and customized lead scoring solutions fosters a culture of innovation within our client's organization. This approach not only accelerates the deployment of new updates but also enhances adaptability to market dynamics and customer needs.

In conclusion, our lead scoring solution has not only optimized lead management processes but has also positioned our client as a leader in leveraging advanced analytics to drive revenue growth and operational efficiency in the competitive ITES industry.

Industry: Manufacturing (3D Digital Scanner)

Business Scenario

The client, an American 3D Digital Scanner Manufacturing Company, sought a robust solution for real-time loyalty points calculation to enhance customer engagement and retention. Their challenge was to implement a rule engine that could dynamically allocate loyalty points based on real-time customer purchase behavior gathered from multiple data sources, including Salesforce, SAP, and SQL Data Warehouses.

Our Solution

To address these challenges, CDWT deployed an advanced Loyalty Management solution leveraging Azure Event Hubs, Azure Databricks, and real-time Spark streaming capabilities:

1. **Data Integration and Real-Time Processing:**
 - Data from diverse sources, including Salesforce, SAP, and SQL Data Warehouses, was ingested into Azure Event Hubs for real-time streaming ingestion.
2. **Real-Time Rule Parsing and Calculation:**
 - Azure Databricks was utilized to perform in-memory, real-time rule parsing and calculation of loyalty points based on customer purchase behavior. This process ensured that loyalty points were allocated dynamically as per the client’s customized rule engine.
3. **Data Transformation and Storage:**
 - Transformed data was securely stored and managed in Postgres for immediate access and analysis. Customers were promptly alerted about their updated loyalty points, enhancing engagement and enabling informed purchase decisions.

Key Capabilities and Benefits

- **Real-Time Processing & Compute on Demand:** Utilizing Azure Event Hubs and Azure Databricks enabled seamless real-time data ingestion and processing, ensuring timely and accurate allocation of loyalty points.
- **Customized In-Memory Rule Parser:** Designed a specialized rule engine within Azure Databricks to accommodate complex loyalty point allocation rules based on dynamic customer behavior.
- **Enhanced Security and Data Privacy:** Implemented robust data security measures, including pseudo-anonymization techniques, to safeguard critical customer information and comply with data protection regulations.
- **Insightful Data Visualization:** Leveraged Azure Databricks and Power BI for comprehensive data visualization, providing actionable insights into customer behavior and loyalty trends.

Business Impact

- **Improved Customer Engagement:** Real-time loyalty points allocation enhanced customer satisfaction and loyalty, driving repeat purchases and higher retention rates.
- **Operational Efficiency:** Automated rule parsing and calculation reduced manual effort and processing time, optimizing operational efficiency and resource allocation.
- **Scalability and Agility:** Scalable architecture and cloud-based solutions facilitated rapid deployment and adaptation to evolving business needs, ensuring long-term sustainability and growth.

In conclusion, CDWT's advanced Loyalty Management solution empowered the client to transform customer engagement strategies effectively. By leveraging Azure Event Hubs and Databricks, the company achieved real-time data processing capabilities, enhanced security, and improved operational efficiency, positioning them as a leader in their industry.

Industry: BFSI

Client Overview

Our client is a leading general insurance company in India, renowned for providing personalized insurance plans and services through a user-friendly application interface. They prioritize meeting each customer's unique needs and delivering timely notifications such as insurance renewals.

Business Scenario

The client previously operated on an on-premises Version Control System (VCS), which led to inconsistent development processes and manual deployment practices. Asynchronous communication between development and operations teams and longer bug-fixing times further compounded their challenges.

Business Challenges

- Inefficient user-management software.
- Cloud resource monitoring gaps.
- Manual deployment processes.
- Extended time-to-market for new services.

Solutions

CDWT proposed a comprehensive solution to modernize the client's software development lifecycle:

1. **Modern Version Control System Implementation**
 - Introduced a robust VCS with environment and user-based branching to enhance development efficiency.
2. **Automation and Continuous Integration**
 - Implemented automated integration and builds using Continuous Integration (CI) in App Center & Azure DevOps Services.
 - Automated deployments to testing environments and Play Store, coupled with automated testing using Appium scripts across multiple devices.
3. **Stable Deployment Environment**
 - Ensured a stable deployment environment for consistent and reliable software releases.
4. **Enhanced Operational Efficiency**
 - Accelerated application delivery timelines, improving traceability and bug resolution speed.
 - Enhanced overall customer experience through faster response times and service reliability.

Outcomes

- Reduced manual deployment time and lowered average failure rates.
- Significantly reduced environment provisioning and infrastructure provisioning times.
- Decreased time-to-market for new services by 40-45%.
- Minimized the risk of downtime to 0.1%.

Benefits

- Increased productivity for both business and IT teams.
- Cost savings on maintenance and upgrades, eliminating unnecessary capital expenditures.
- Improved software quality, reliability, and reusability.
- Higher success rates for digitalization strategies and transformation projects.
- Centralized project management, orchestration, and scheduling capabilities.

The collaboration between the client and CDWT underscores the transformative impact of DevOps and automation in software development. By embracing modern DevOps practices and automating critical aspects of their software delivery pipeline, the client achieved faster, more reliable releases, reduced operational errors, and enhanced collaboration across teams.