DataArt

DataArt

Microsoft Expertise

New York USA
London UK
Munich Germany
Zug Switzerland

DataArt is a global software engineering firm that takes a uniquely human approach to solving problems.

With over 25 years of experience, teams of highly-trained engineers around the world, deep industry sector knowledge and ongoing technology research, we help clients create custom software that improves their operations and opens new markets. Powered by our People First principle, we work with clients at any scale and on any platform and adapt alongside them as they evolve.

Software Design, Development, and Support

DataArt

25+
global locations
- USA
- United Kingdom
- EU
- UAE
- Eastern Europe
- Latin America
- India

Reliable

profitable, financially
strong, fully audited

6,000+
consultants & engineers

95%
return clients

25+ years
in operation

4,500+
successfully completed
projects

Microsoft Partner
since **2000**

Building on Azure
since **2011**

Latvia
Kazakhstan
Ukraine
Poland
Germany
United Kingdom
Portugal
Spain
USA
Colombia
Georgia
Brazil
UAE
Romania
Cyprus
Armenia
India
Switzerland
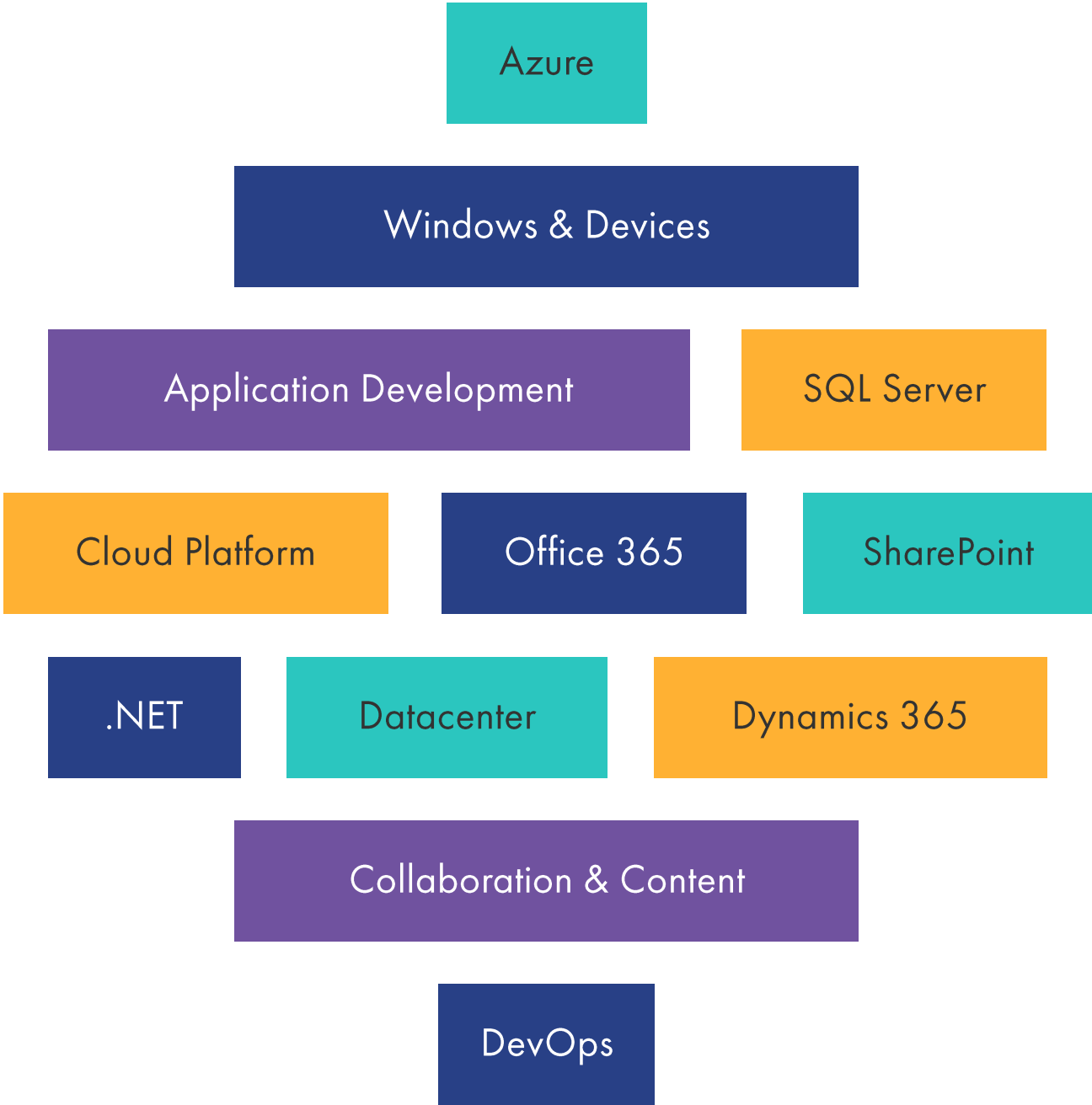Argentina
Serbia
Bulgaria
Uruguay

Where we work

Microsoft Stack

DataArt

Most modern enterprises rely on **Microsoft technologies**, from business intelligence and productivity systems, to data management and development tools.

DataArt has extensive experience with Microsoft stack and helps clients **develop, integrate and optimize** Microsoft-based solutions that **drive innovation and growth**.

Gold
Microsoft Partner
Microsoft

Microsoft
Solutions Partner

Microsoft Azure

Azure

Windows & Devices

Application Development

SQL Server

Cloud Platform

Office 365

SharePoint

.NET

Datacenter

Dynamics 365

Collaboration & Content

DevOps

Why DataArt & Microsoft?

DataArt

- Microsoft **Solutions P**artner

- Microsoft **Gold** Partner

- **20 years** of partnership

- Certified Developers, Architects, and DevOps

- **Azure** consulting partner

- Building on Azure **since 2011**

- Strong **cloud** expertise

- North America, UK, EMEA, LATAM

- DataArt is **a partner of choice** in various partnership
  activities (events, external workshops, programs)

Microsoft Solutions Partner designations identify partners with specific
capabilities and experiences in high customer demand solution areas

✓ Solutions Partner for Digital &
App Innovation (Azure)

✓ Solutions Partner for Infrastructure
(Azure)

✓ Solutions Partner for Data & AI
(Azure)

DataArt

Working **across industries**, DataArt designs and scales Microsoft solutions that drive customer transformation

Finance

Insurance

Retail & Distribution

Travel & Hospitality

Healthcare
& Life Sciences

Media
& Entertainment

Azure Services and Competencies

DataArt

Azure Services

- Solution design and cloud architecture

- Analytics platform design and implementation

- Cost optimization

- Security testing

- Application modernization

- Data management and data warehousing

- Optimization of operations and security

As an Azure Consulting Partner, we have solid experience with Azure services, implemented for multitude of client projects

Azure Competences

Kubernetes Service and Container Instances

Azure Functions, App Services

Databricks, Data Explorer, HDInsights

ML and AI with CVS, NLTK
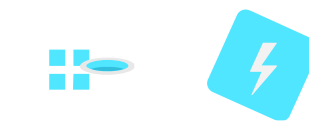
Data Warehouse, Data Lake, Synapse

Cosmos DB, Azure DB/SQL

Key Vaults, Firewall, VPN

Azure Blueprints, Templates, Terraform

DataArt Apps & Services in Microsoft Azure Marketplace

DataArt

SMART on FHIR Accelerator	Azure App Custom Development	Cloud Migration
Link	Link	Link

App Architecture Modernization	Microsoft Azure Security	Azure Starter
Link	Link	Link

You can find more DataArt consulting services and apps here.

# Case Studies

Legacy Systems Transformation for Monex Europe

DataArt

Client

Monex Europe is a leading specialist in commercial foreign exchange. Headquartered in London, the company offers a suite of foreign exchange products designed for corporate clients and high net-worth individuals. A security audit revealed that some of Monex's systems were using SaaS services in Azure that were no longer supported and no longer receiving security updates from Microsoft.

DataArt was able to eliminate the need for classic Azure services by containerizing and deploying legacy applications in Service Fabric, a next-generation platform that makes it easy to package, deploy, and manage scalable and reliable application components. The bundling of Windows Docker (with IIS) with Service Fabric eliminated the need for classic Azure services without any significant investment in system overhauls.

Highlights

- Substantially increased efficiency

- Substantially reduced costs and infrastructure requirements

- Implementation of security best practices

- The ability to flexibly manage load distribution, ensure the security of inter-service communication, and maintain a high degree of fault tolerance with zero system down-time

- Added flexibility in system health monitoring and diagnostics

Global Car Service for Corporate Clients

GroundScope   DataArt
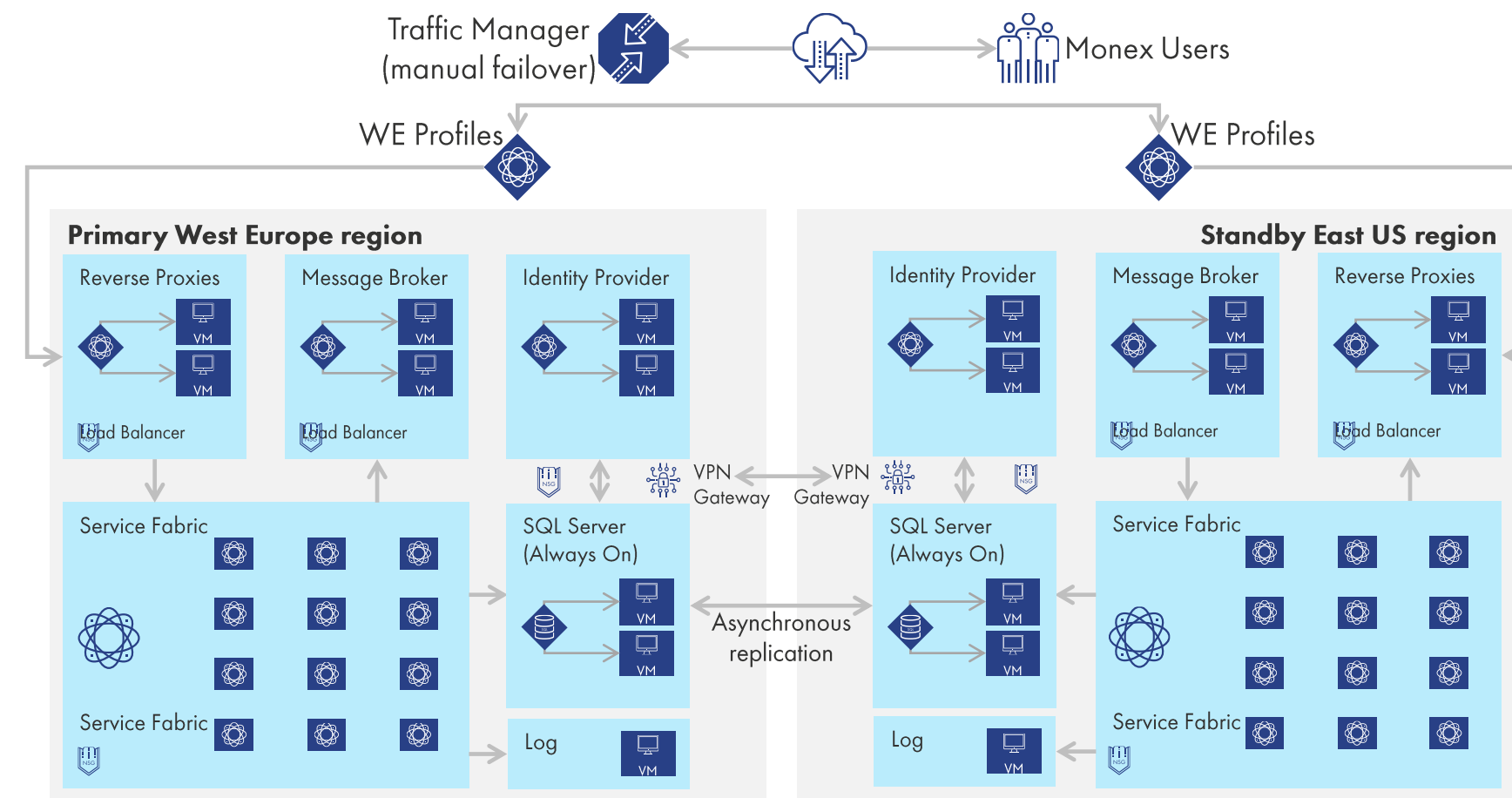
Client

Travel & Hospitality Industry

GroundScope is a leading U.K.-based service that provides business cars to clients around the world. The company lets traveling employees manage their journey by providing access to a network of fully vetted ground transport providers.

Challenge

GroundScope wanted a more reliable and secure car booking platform, as well as a new mobile app. The legacy system was also difficult to integrate with modern software and external APIs, so the client asked to build a more efficient and extensible system to reduce operational costs. In addition to this, the new system should be secure and compliant with various industry regulations.

> We're very pleased to have DataArt as a partner. Their combination of travel industry experience with technical expertise helped us achieve our goals faster and run our business much more efficiently.
>
> The new system allows us to manage and operate the business more cost-effectively and provide a faster response time to all customer booking requests.

John McCallion
CEO, GroundScope

Global Car Service for Corporate Clients

Business Benefits

- The new solution, which uses Azure as the cloud platform, has reduced operating costs by 80%, simplified new release deployments and improved fault tolerance.

- Azure dashboards and flexible monitoring reports provide all necessary information to control system availability and health.

- The platform makes journey arrangements easy and stress-free for clients. Moreover, a faster onboarding process has already brought on several new high-profile clients.

Solution

- DataArt helped modernize the system by moving from a legacy infrastructure to a cloud solution.

- There was a choice of multiple cloud providers and Azure was the best option due to high level of compliance out of the box, e.g., HIPAA.

- Azure was chosen due to native support for .NET services.

- Containers and AppServices were used to optimize resource utilization and provide quick disaster recovery mechanism.

- Azure Bastion service was used to secure the infrastructure access.

- Building new platform using Azure cloud has reduced the operating costs on infrastructure by 80%.

Azure Well-Architected Review for GroundScope

Client

GroundScope is a leading UK-based service that provides business cars to clients around the world. The company lets traveling employees manage their journey by providing access to a fully vetted ground transport provider network.

Challenge

The car booking platform, which runs on Azure cloud platform, was experiencing performance issues with its current system. Therefore, the working team decided to conduct an Azure Well-Architected Review (WAR) to identify the root cause of the issues and improve the overall performance and status of the system.

"

The conducted Well-Architected Review (WAR) used a relatively small amount of our resources. At the end of the process, we were provided with a detailed review and some excellent insights into enhancements we could make to improve the performance of the system, many of which were very easy to implement.

Before WAR, we found ourselves improving the performance just by purchasing extra processing power from Azure. The WAR has enabled us to tackle any issue in a much more planned, structured, and cost-effective way.

Russell Jackson
CTO, GroundScope

Azure Well-Architected Review for GroundScope

Solution

The Azure Well-Architected Review (WAR) provides an opportunity to review the current state of the project against Microsoft's best practices and identify areas for improvement.

Thus, the working team received the WAR report containing recommendations to improve the system based on the cloud architecture pillars: security, operational excellence, performance efficiency, reliability, and cost optimization.

Business Benefits

The working team implemented most of the recommendations provided in the WAR analysis report, as a result of which the system's stability has been greatly improved. This advancement has enabled our client to use the system freely and without the risk of any downtime, resulting in a better experience for the client and a more reliable service for the business.

Highlights

- Increased stability of the system
- Improved protection against data loss
- Decreased operational costs
- Simplified rotation of secrets (DB passwords, keys, etc.)
- Reduced build time and increased time-to-market metric
- Increased back-end scalability
- Reduced configuration drift

Technology

- Microsoft Stack
- Azure Cloud Services
- RabbitMQ
- Seq

Web Portal Solutions
for Streamlining Healthcare Processes

ANTHONY NOLAN   **DataArt**

Client

Anthony Nolan is a UK-based charity that works in the areas of blood cancer and blood disorders, and hematopoietic stem cell transplantation. It makes lifesaving connections between patients in need and strangers ready to donate their stem cells.

Challenge

To streamline their workflow and improve the efficiency of the internal staff, the client recognized the need to replace the outdated desktop system with modern web portals. Additionally, the client needed to create a new solution for its external users – staff of the hospitals they work with— to digitize communications with them.

Solution

DataArt enhanced the client's two existing web portals solutions, **Anthony Nolan Search and Anthony Nolan Labs**, both accessible through the Anthony Nolan Active Directory. These portals were used for the client's internal staff and were hosted on the Azure cloud. The first solution, Anthony Nolan Search, allows users to manage patient data, request and track international and internal donor searches, and request and track additional tests. And the second system, Anthony Nolan Labs, allows users to track samples and investigations performed for donors and patients.

DataArt also developed the **AN Connect** external system for Anthony Nolan, which was created from scratch and is accessible to external users via the B2C Active Directory. This portal allows users to manage the patient journey - from registration to receiving a transplant. Like the other solutions, this new system was also built on the Azure cloud platform.

Additionally, DataArt provided technological support to enhance integration with the European Marrow Donor Information System (EMDIS), a network of bone marrow donor registries that includes Anthony Nolan as a member. These enhancements provided the ability to search for compatible donors worldwide, request tests for the donors, and reserve the donors for the patient.

Web Portal Solutions for Streamlining Healthcare Processes

ANTHONY NOLAN   **DataArt**

Business Benefits

The developed internal platforms have made the work of the staff easier, resulting in increased productivity. Many tasks that previously took a significant amount of time can now be completed in just a few minutes.

Also, the development of the external portal has strengthened relationships with external partners since the partner hospitals were also involved in the evaluation and requirements-gathering processes of the systems development. And thanks to this portal, the communication between the company and its partner hospitals is expected to become easier and more streamlined, leading to even stronger partnerships.

Highlights

- Automated search for matching donors for patients with blood cancer
- Automated laboratory analysis of samples
- Secured platform
- Digitized communication between Anthony Nolan and its partner hospitals
- Faster and more efficient communication
- Subsequent increase in efficiency of the internal staff

Technology

- ASP .NET Core
- Azure App Services
- Azure Functions
- Azure SQL Server
- Azure Storage

- Azure Service Bus
- Azure Active Directory
- Azure Active Directory B2C
- Azure Logic Apps
- React + Redux

- Azure DevOps
- Terraform
- NUnit + Selenium for auto tests
- Puppeteer for FE end-to-end tests

Anthony Nolan Labs
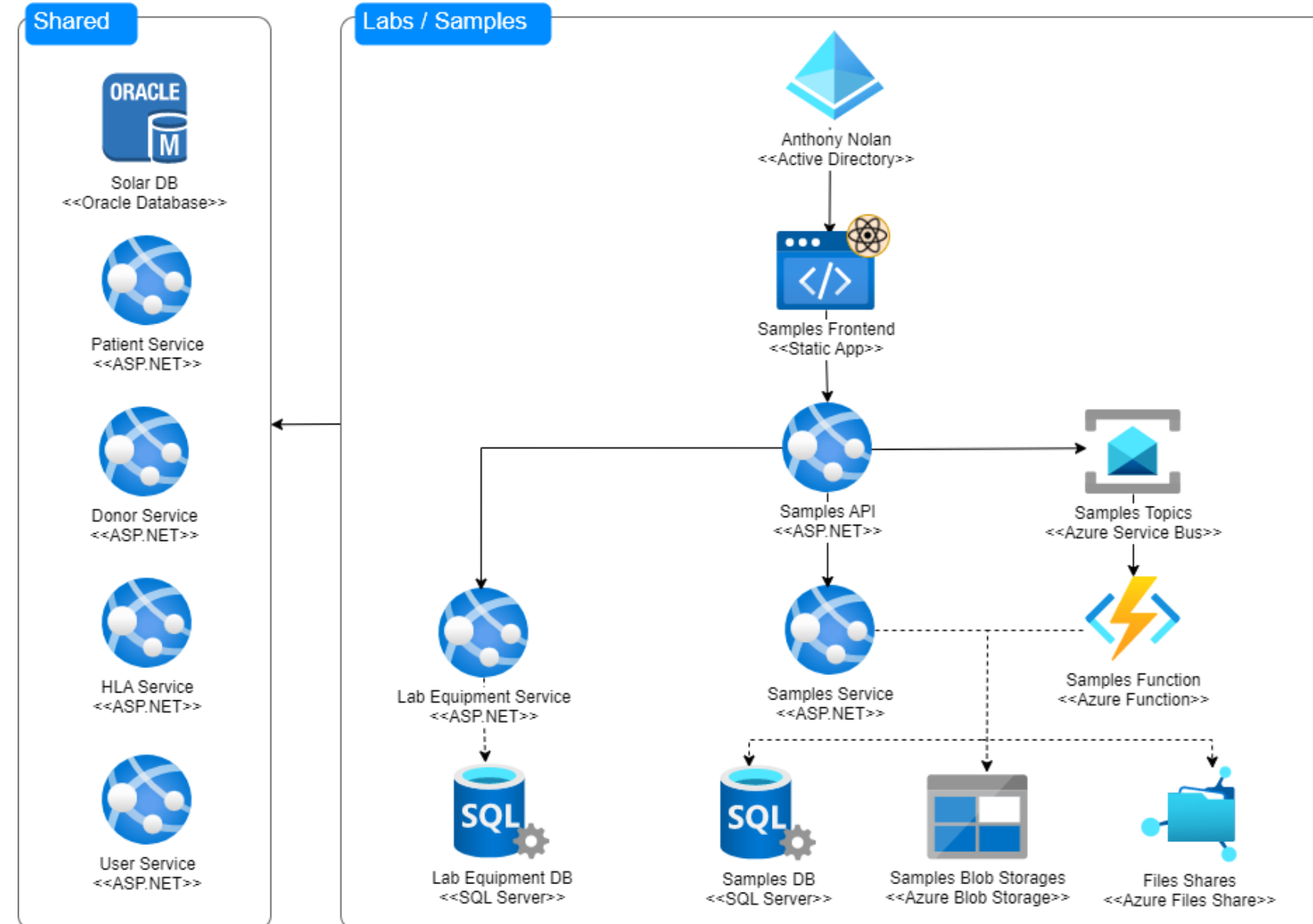
Anthony Nolan Labs System

Anthony Nolan Search
and Integration with EMDIS
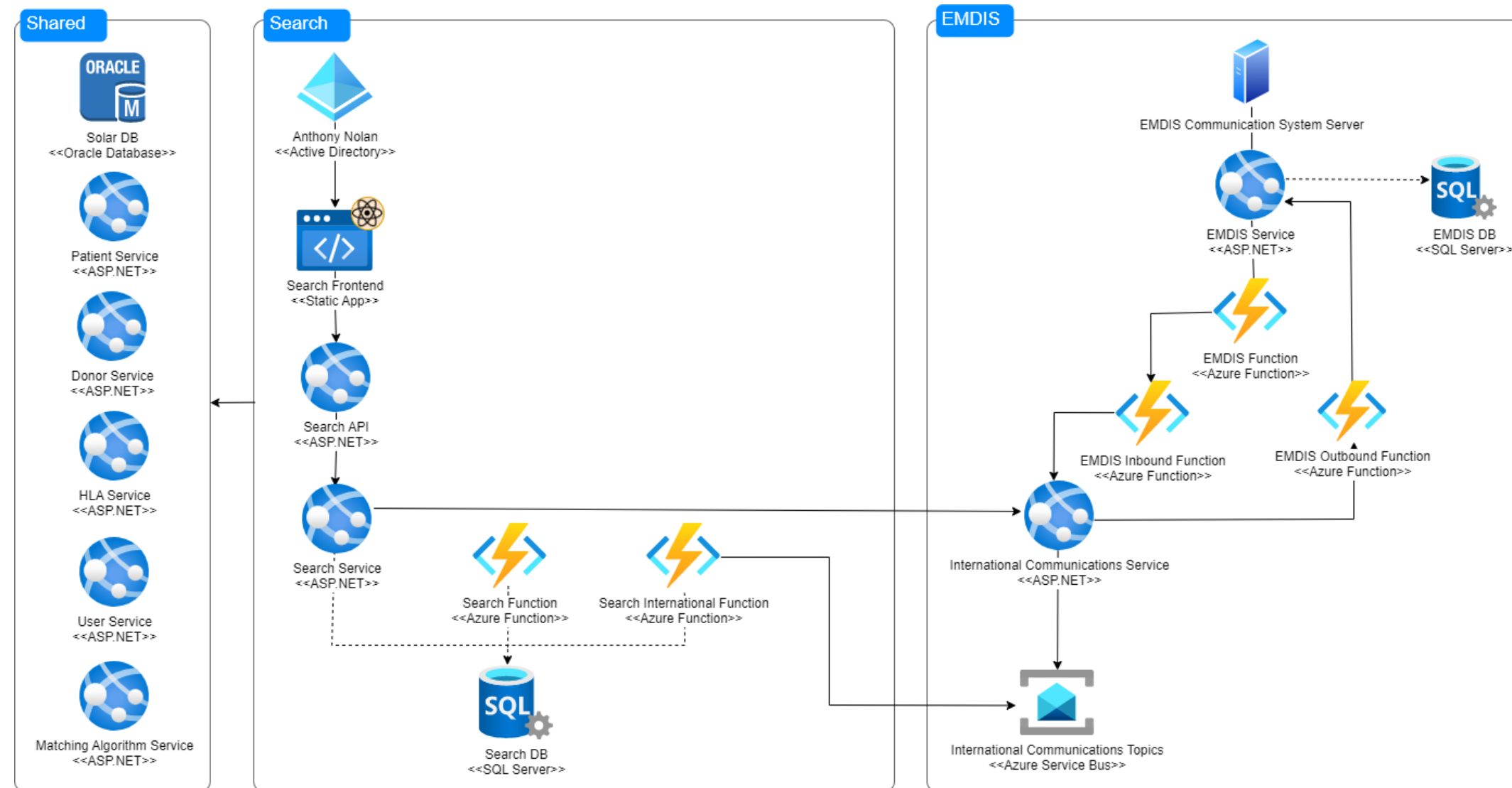
Anthony Nolan AN Connect

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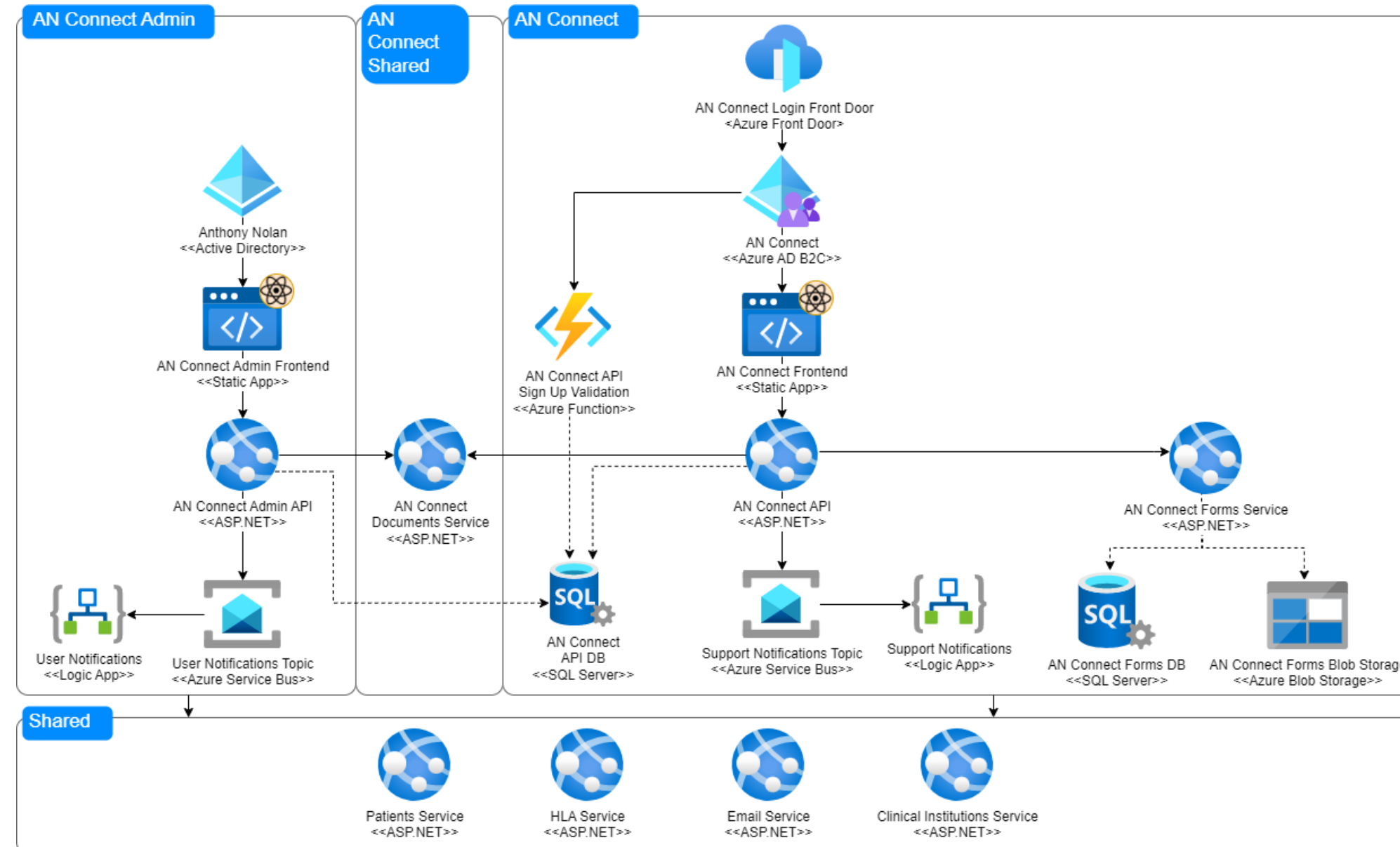
Application Suite for a Large Hedge Fund

DataArt

Client

The client is a global independent asset manager with primary focus on credit-related activities, that has been serving various sectors of business for a few decades.

Business Challenges

- High cost of any errors and irregularities in the underlying data
- Many portfolio managers with very different needs
- Continually expanding asset coverage and evolving investment strategies

Highlights

- Seamless integration with Charles Rivers, Wall Street Office, Broadridge Security Master, and other industry standard products and feeds
- Convenient workflow management tools providing unparalleled view into crucial business processes across the company
- Powerful data warehouse based on Tableau and Microsoft SQL Server
- Extensive and continually growing internal web application delivery platform

Benefits

- Reduced operational overheads and seamless integration
- Increased transparency into fund raising, deal making and portfolio performance
- Flexible no code access to the crucial investment data
- Rapid onboarding of new asset classes and investment strategies
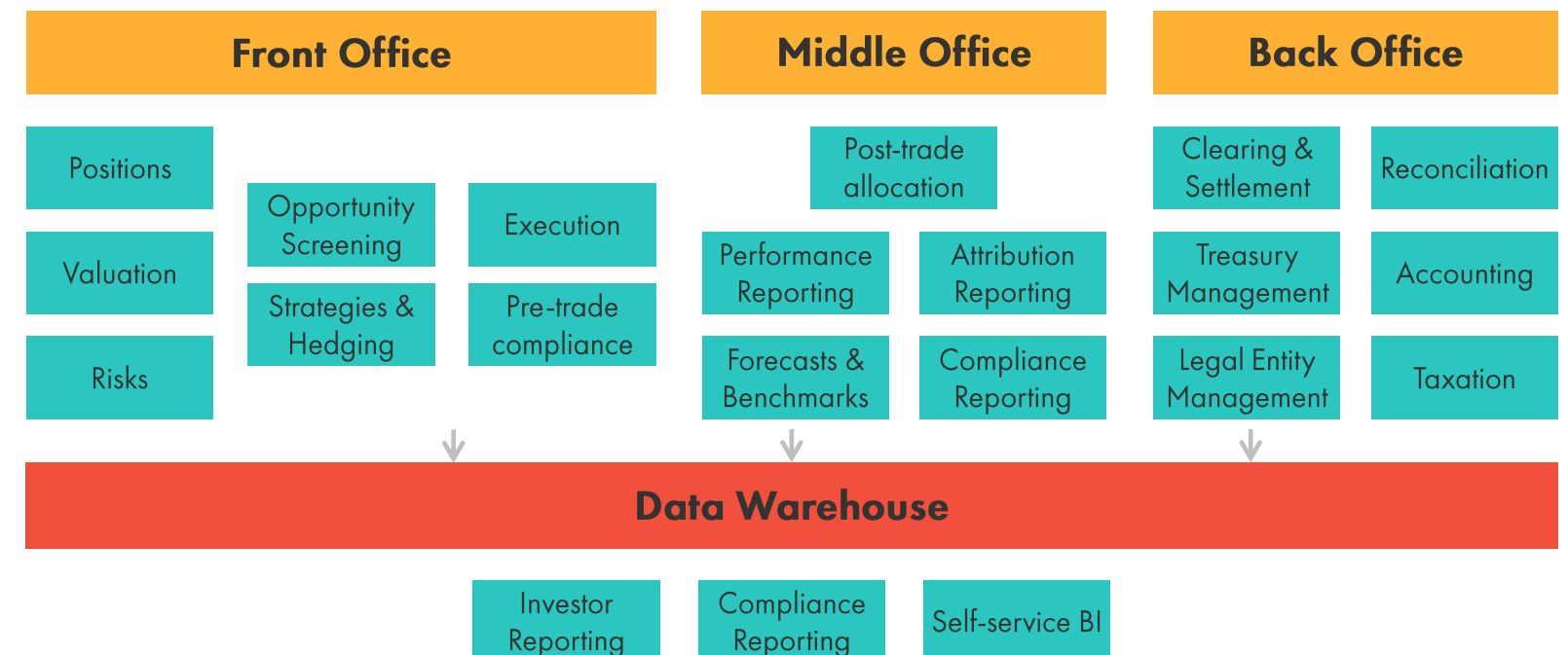
Technologies

Vue.js / Ag-Grid / Tableau / .NET 4.7 / ASP / .NET MVC / SQL Server

Portfolio Analytics Platform: Cloud Migration and Optimization

DataArt

Client

The client is a global alternative asset management company.

The client lift-and-shifted its portfolio analytics platform from on-prem to Microsoft Azure. Despite the fact that the client historically had been using Microsoft Stack, the processes still needed further streamlining.

DataArt implemented the best practices for cloud development and migration to optimize the deployment process, monitoring strategy, and performance of the environment. This optimization allowed the client to cut costs for migration and hosting.

Challenge

System requirements changed very quickly. The client needed to satisfy users' requirements instantly, so new features or customizations to existing functionality were to be released frequently and promptly

There was no CI/CD environment in place. The deployment was performed manually, hence was prone to issues

Solution

DataArt helped the client to develop a custom portfolio analytics platform to calculate the values of financial metrics and conduct their analysis.

Some of the platform's benefits included:

- Huge amount of portfolio calculations can be done overnight

- Azure cloud architecture enables virtual machines for calculations on-demand, which eliminates the need for on-premise servers

- Calculations can be done simultaneously, so they can take up to 10x less time than previously. This gives the client additional flexibility

DataArt also helped the client to create an independent data layer for the platform, which allowed portfolio calculations to be done at anytime.

DataArt implemented a modern CI/CD approach with testing and version control.

Portfolio Analytics Platform: Cloud Migration and Optimization

Highlights

- Application and development process lifecycle adapted for Cloud
- Cost optimization and highly increased application performance
- Scalable architecture
- The ability of the platform to make calculations for data from different sources
- Calculations scheduling

Business Benefits

- Reduced cost on infrastructure maintenance in the long term
- A significant increase in the calculations volume
- Subsequent reduction of administration costs due to the transition to Azure Cloud and Managed Services
- Scalable architecture allows the business to grow along with the increasing number of portfolios
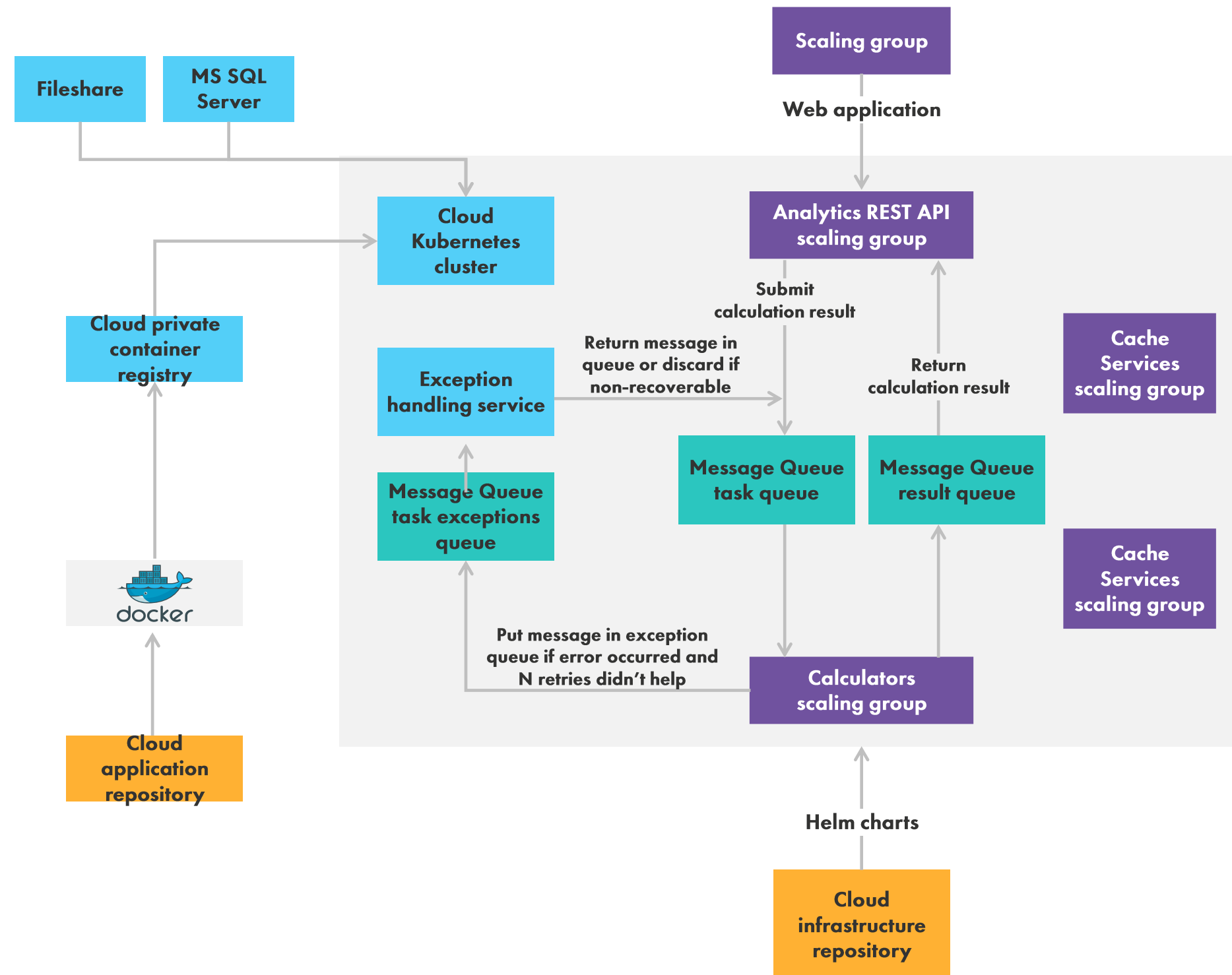
Smart Lift-n-Shift from AWS to Azure

DataArt

Client

The client is a US based company that makes web-based clothes stores plugin. The plugin is used for further communication with end users and is platform agnostic. DataArt has been developing an application for the client for three years and has established great relationships and trust.

The client has been using AWS services, when Microsoft initiated an engagement and provided good discount to use Azure services. DataArt team performed lift-n-shift migration for the client from scratch, moving and adopting all his applications and services to Azure. During Migration, majority of systems were modernized and best practices were implemented.

Summary

Smart Lift-n-Shift was performed by DataArt from scratch without any POC or MVP etc.
It took a month to perform end-to-end flow from planning till finish of the move.

Business value

The client received a huge costs optimization using Microsoft proposition.
In addition, a modernization of client systems was performed, making value stream even better using latest Microsoft Azure Services.

Technologies and approaches

- AKS K8s orchestration is used in Azure instead of simple Docker containers in AWS
- Azure DevOps (10 pipelines) is used as CI/CD process instead of Jenkins in AWS
- Azure Functions are used instead of AWS Lambda functions
- Other Azure-native services used are Azure Service Bus, Blobs and more
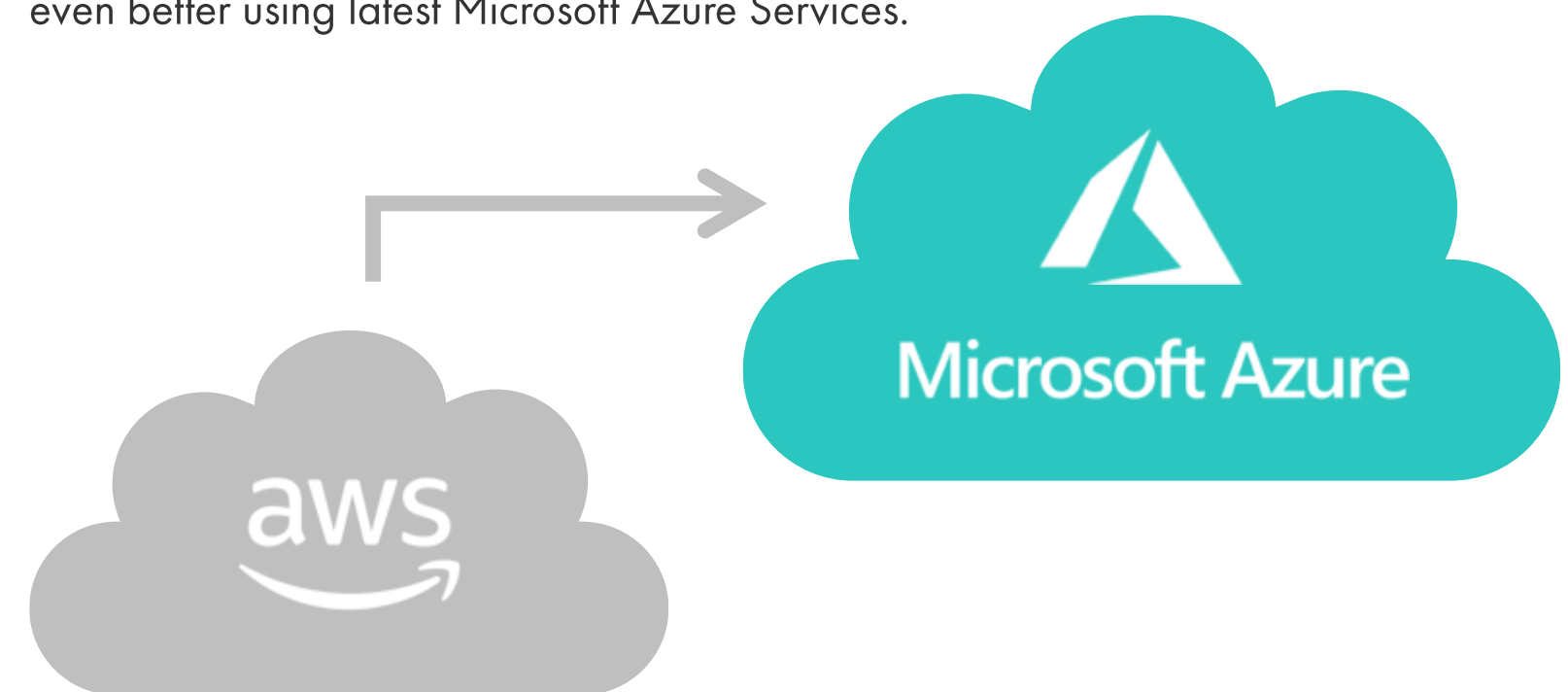
Data and Portfolio Analytics

DataArt

Client

The client wanted to redesign the existing in-house system and to expand its functionality, make it scalable and further provide it as a service to other equity funds.

Highlights

- Performance monitoring (with a diverse metrics array) for invested businesses

- All information submitted by portfolio companies is stored in the database and automatically updated information on a client can include up to 150 different details

- A powerful, user-friendly, centralized server storage with files available in Excel format

- System supports multiple types of Excel spreadsheet templates

- Prefabricated, new, custom spreadsheets can contain intricate calculation formulas

- Report aggregation functionality makes it possible to merge multiple spreadsheets into a single printable file

- Spreadsheets can be exported to SAC and Microsoft Document Imaging (MDI) format

- Intricate multi-level approval workflow

Technology

Integration with Active Directory, Excel, Cognos, Open ID, Live ID, Sharepoint
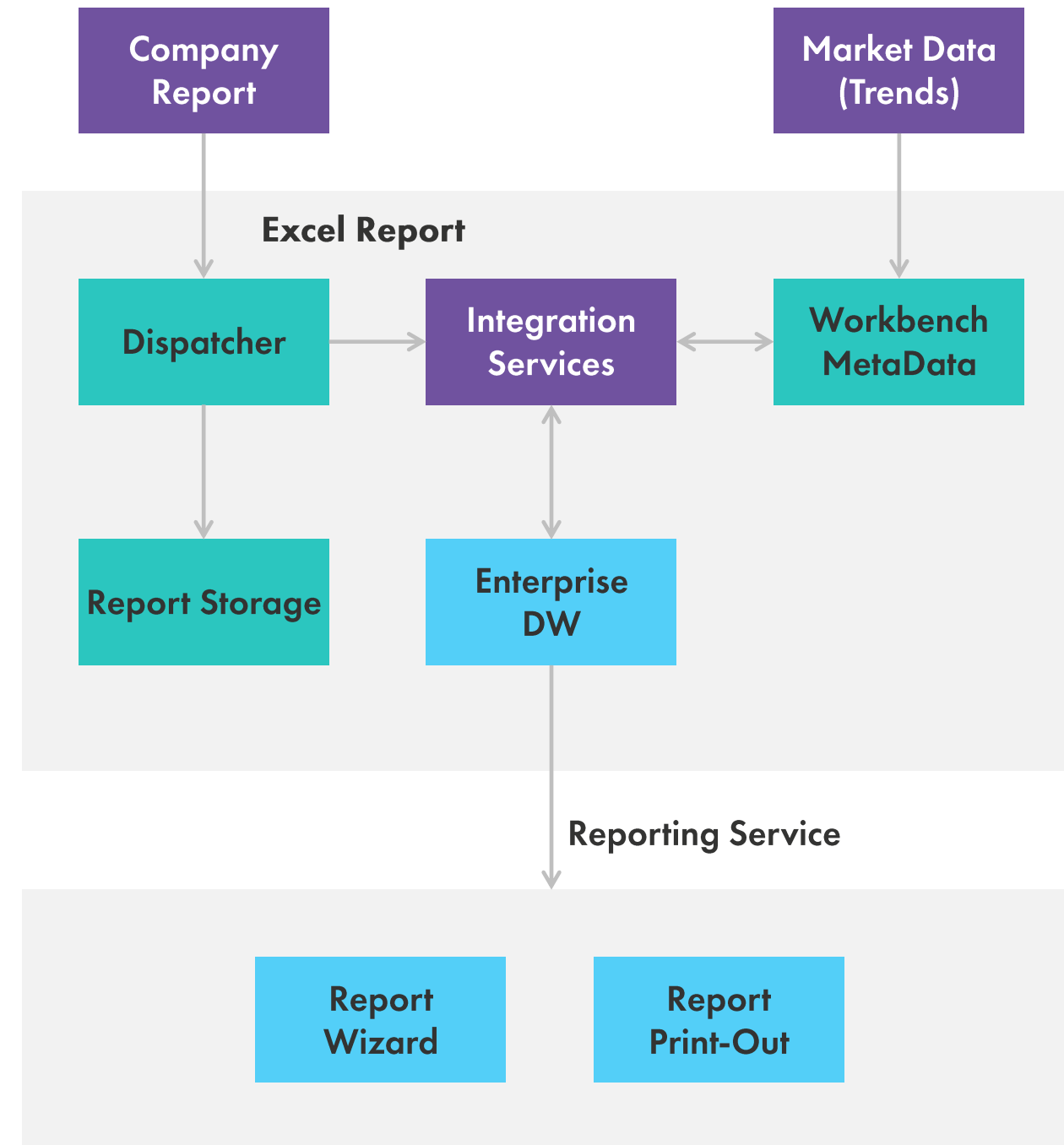
Analytics Platform for Guest Experience System

DataArt

Client

The client is a leading hospitality technology solutions company that offers SaaS platform to major hotel groups. The platform offers end-to-end solutions and support, transforming guest experience and improving operational efficiency, leading to higher market share and profit margins.

Solution

DataArt designed and implemented Data and Analytics components of the platform. Engagement began with POC focused on de-risking core technology decisions, comparing several implementation options (Data Lake + SAAS + DW, Azure Data Warehouse, Traditional Data Warehouse) and validating core requirements fit:
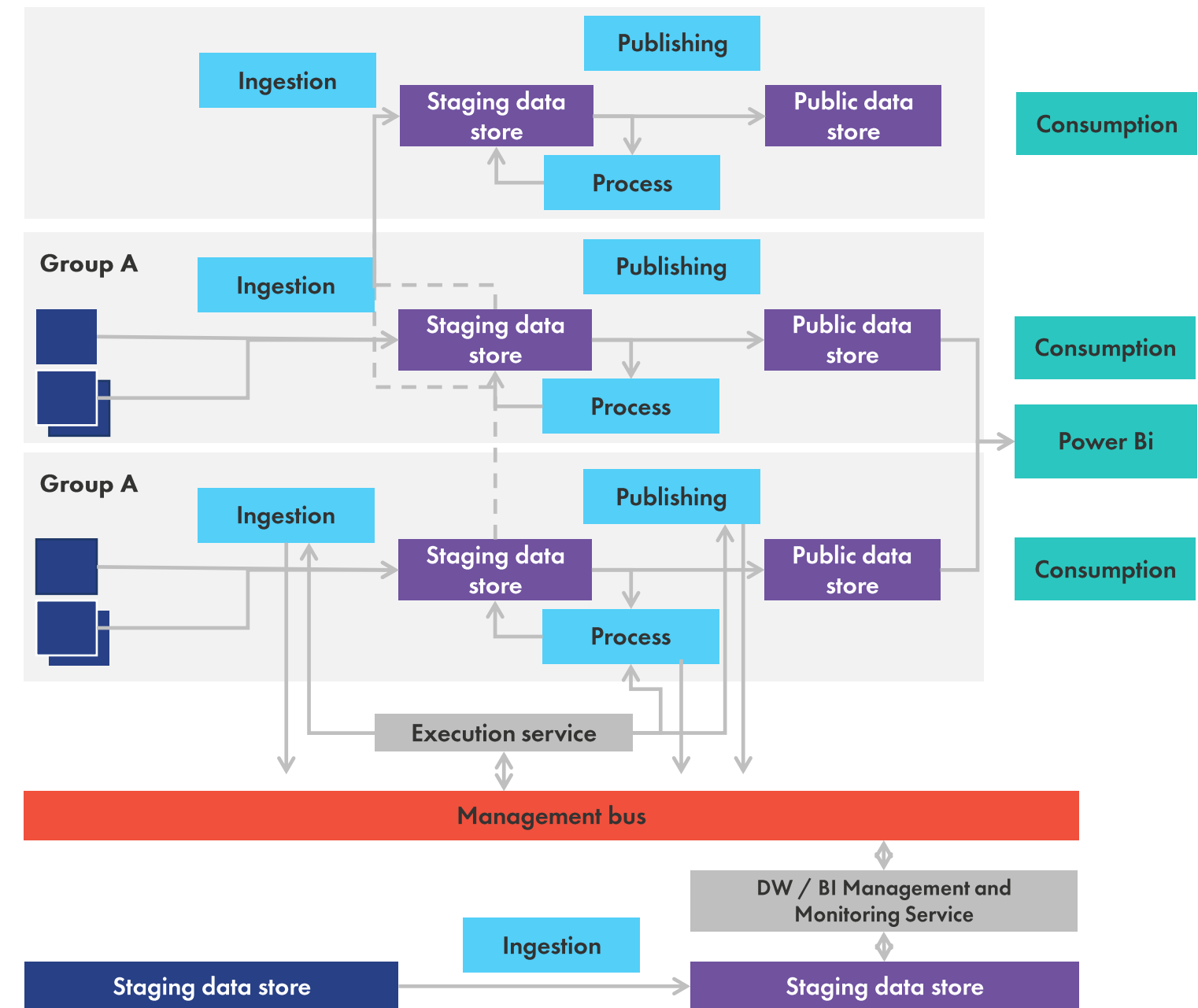
- Multi-tenancy at database level

- End-to-end integration data flow

- Authentication in Power BI

- Infrastructure cost optimization

Several month later, data and analytics platform based on proposed architecture was successfully implemented.

Technology

Azure, Elastic Database Pool, Functions App, Data Lake and Blob Storage, Power BI Embedded

Presentation Recording Application
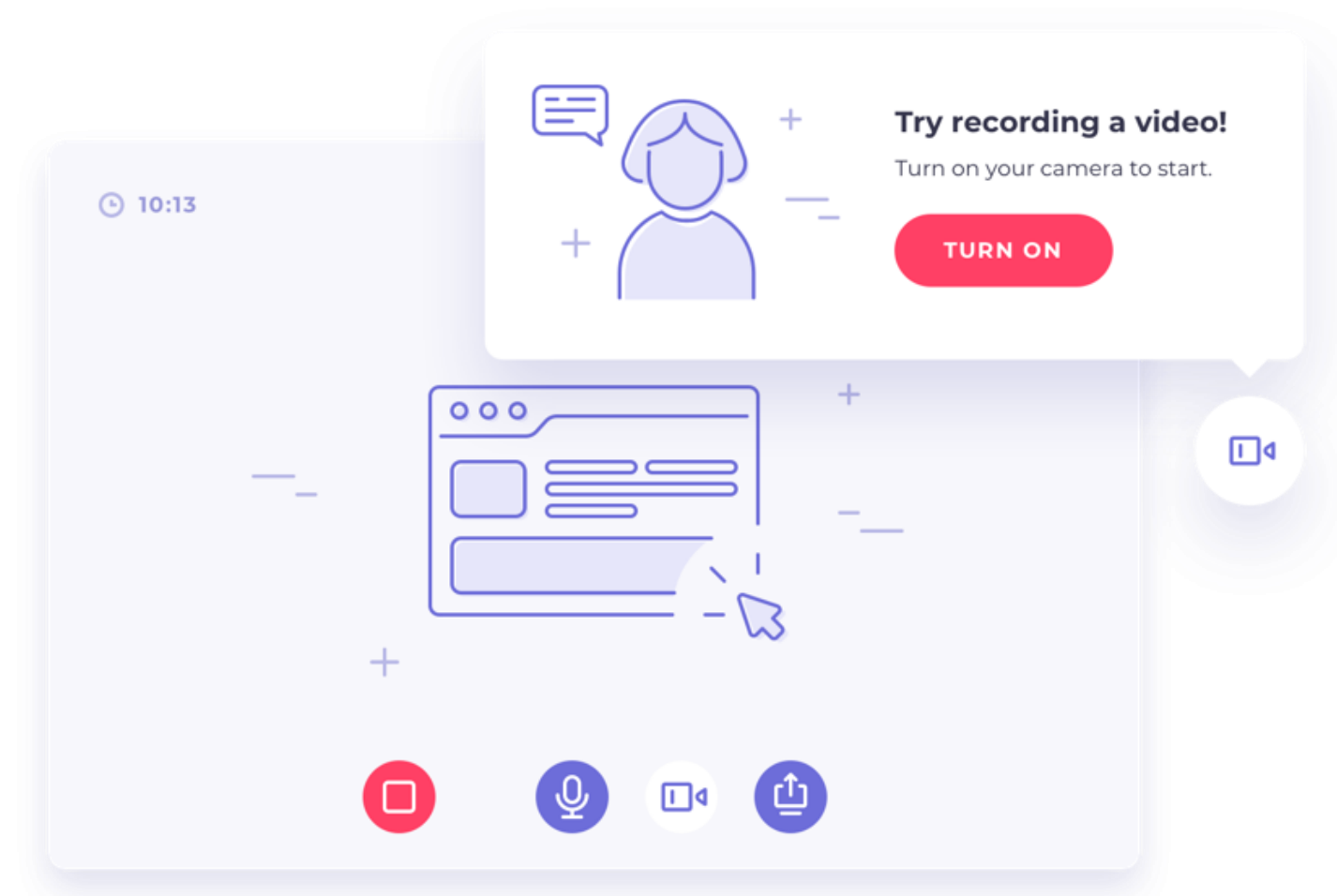
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Client

DataArt's client focuses on helping their customers to automate conference organizing process. The company runs an abstract management software that makes it possible for users to manage calls for abstracts, speakers and presentations. We enhanced the software with a presentation recording application that allows users to upload their PDF or PPTX presentations, record voice or video narrations, and save the presentations as video files.

Highlights

- Standalone web application
- Integration with the client's abstract management application
- Integration with Video.js web video player
- Video recording with a computer microphone and webcam
- Automatic scaling in the cloud based on users' needs
- Optimized load balancing for efficient resource usage
- Optimized recording settings
- No file size and time limits
- Cloud file storage

Technology

Jitsi, Jibri, Video.JS, Azure VM, Azure Blob Storage

Commercial Exchange Platform

DataArt

Client

DataArt provided full line of IT Services to Europe's leading FX specialist to design and build a platform that provides confidential, same day spot and forward FX contracts to a client base of large corporations and financial institutions.

Highlights

- Azure-based cloud platform, multi-regional deployment
- High-performance
- Compliance with recent & upcoming regulatory change
- Payments delivery for all jurisdictions in multiple regions
- Increased client retention and acquisition rate

Technology

- Microsoft stack
- Azure Cloud Services
- Azure Service Fabric
- Active Directory
- SQL Service (Always On)
- RabbitMQ
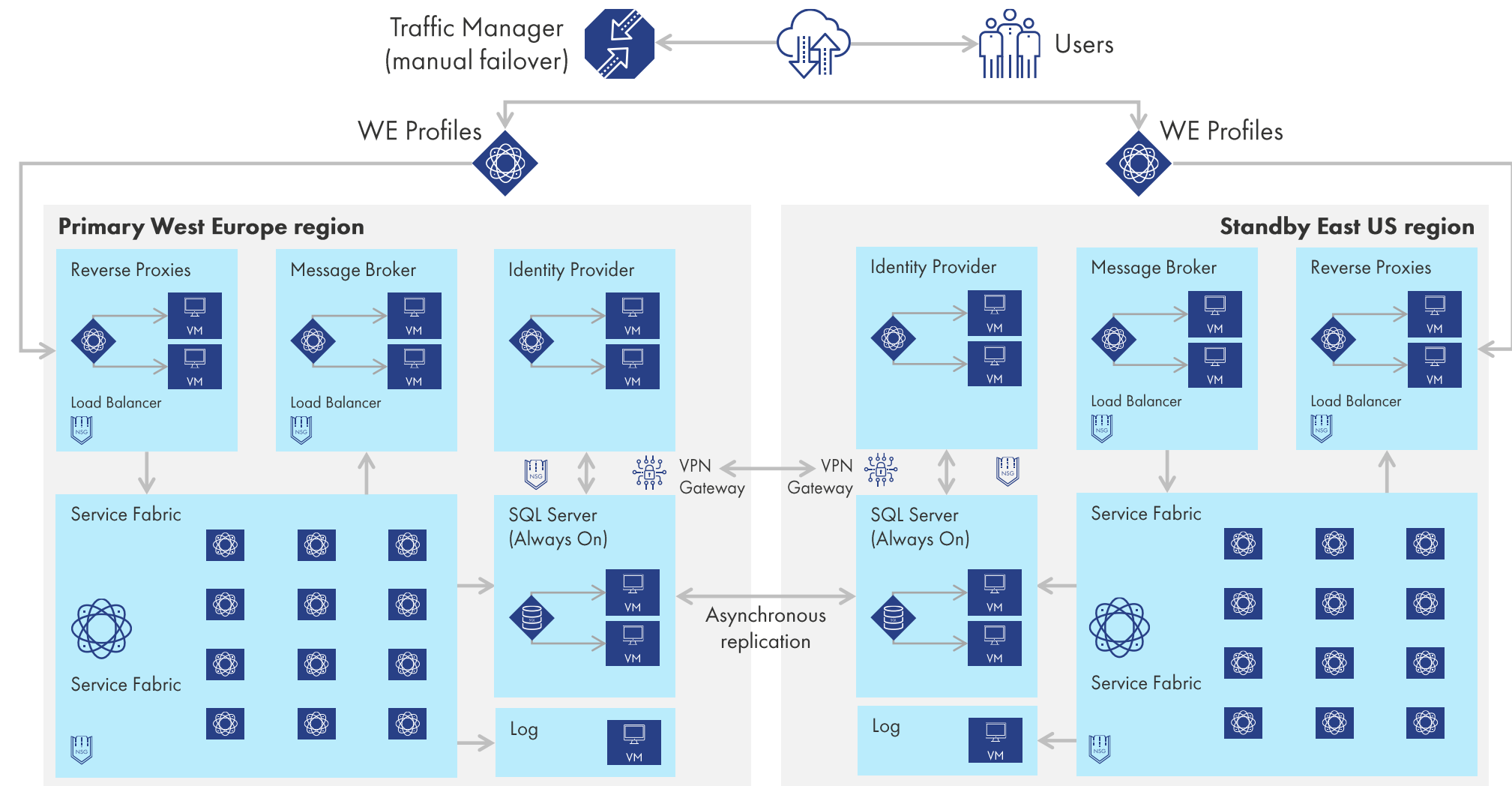
Crypto Custody Solution. Azure Platform

DataArt

Solution

The solution is a financial instrument, a cryptocurrency storage depository built on Azure Platform.

Highlights

- A fully automated and secured platform
- Provides adequate protection
- Stores clients' crypto assets in a secure and risk-free way
- The system is divided into several independent layers, each with a certain level of safety
- Complete protection against natural damage, human error, and virtual attacks
- Decentralized administrative access to separate parts of the solution
- The use of Azure Key Vault provides protection for the private keys
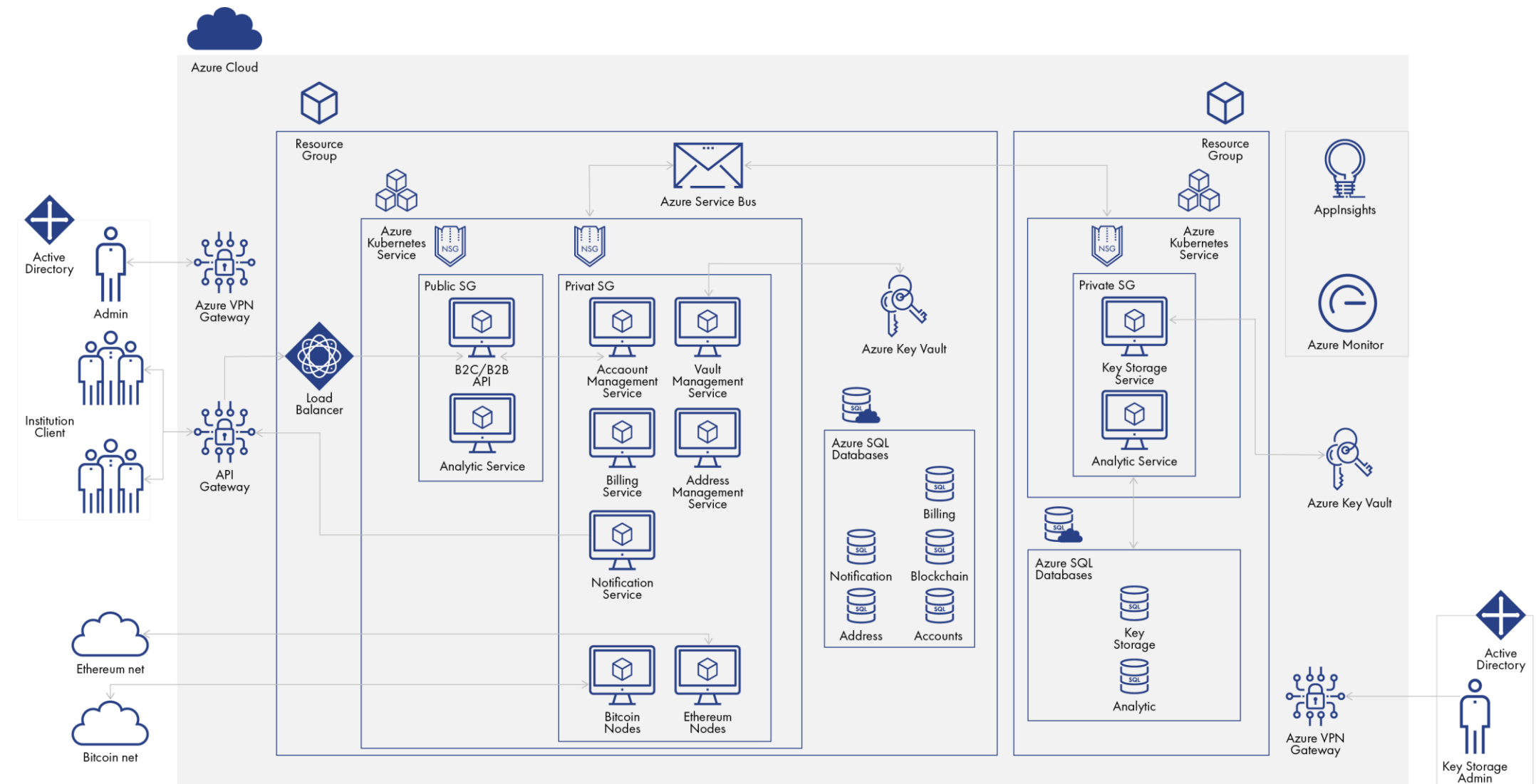
Live Events Management Platform
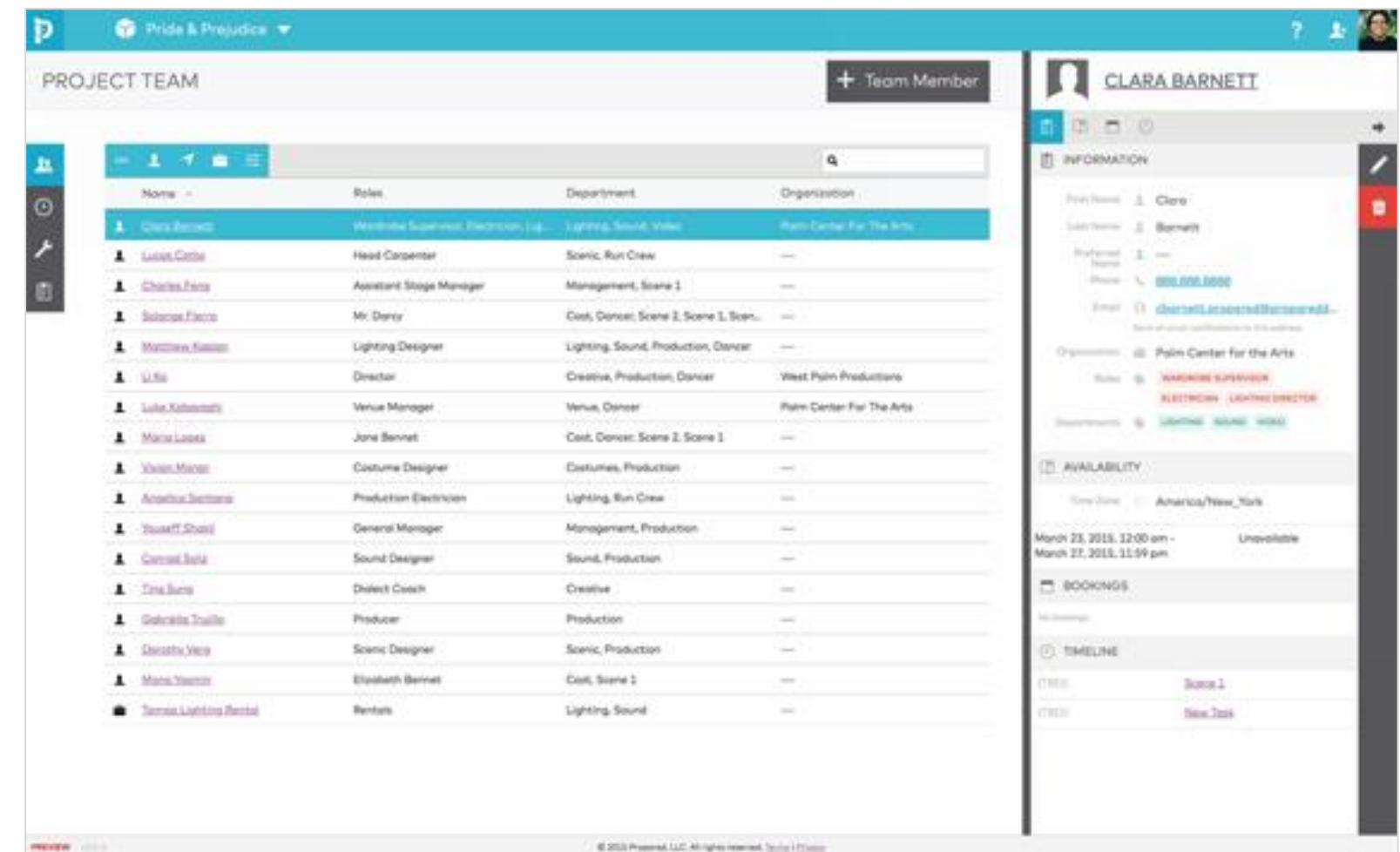
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Client

The client is a premier technical production and event management firm that works with entertainment and marketing agencies to realize "big vision" event concepts through project management and the execution of technical elements. As full-time production managers, the client needed a software solution to help them manage live events.

Solution

Majority of the products on the market were designed for traditional corporate project management, which is significantly different from live event project management. After exploring dozens of off-the-shelf products the Client came to DataArt for help build a custom Web-based solution encompassing all features crucial for effective live events management.

Technology

- Front-end with rich UI implemented using the following technologies:

- Backbone and Marionette

- Styling: Bootstrap 3 and jQuery UI.

- Precompilers: TypeScript

- Back-end: .NET, Azure (SQL Database, Web-sites), EF5, ASP.NET MVC 5, WebAPI

- Hosting on Microsoft Azure (cloud application platform)

- Billing platform: Recurly

- Email Solution: Sendgrid (cloud-based platform)

Cloud Migration for Music Analytics Platform

DataArt

Challenge

A leading data and analytics provider for the music industry chose DataArt as a vendor for a major data migration from on-premise data centers to the cloud. The DataArt team conducted a thorough audit of the client's existing infrastructure and designed migration roadmap and a new cloud-based architecture based on Azure and Snowflake. As a result, DataArt performed a seamless migration of all systems that power the client's innovative analytical platform

Highlights

- High availability, resilience, fault tolerance, and disaster recovery with the new cloud infrastructure

- Over 50 data sources integrated

- 40 TB transactional data & 70 TB metadata in the system

- 40 GB of raw data & 4 GB of metadata ingested daily

- Detailed analysis for geographical, ethnographic, and worldwide data for specific artist, album, song or media

Technology Stack

Python, Javascript, Perl, Kubernetes, Azure Storage, Azure DevOps, Terraform, Ansible, Airflow, MySQL, Snowflake, PostgreSQL, Couchbase, Redis
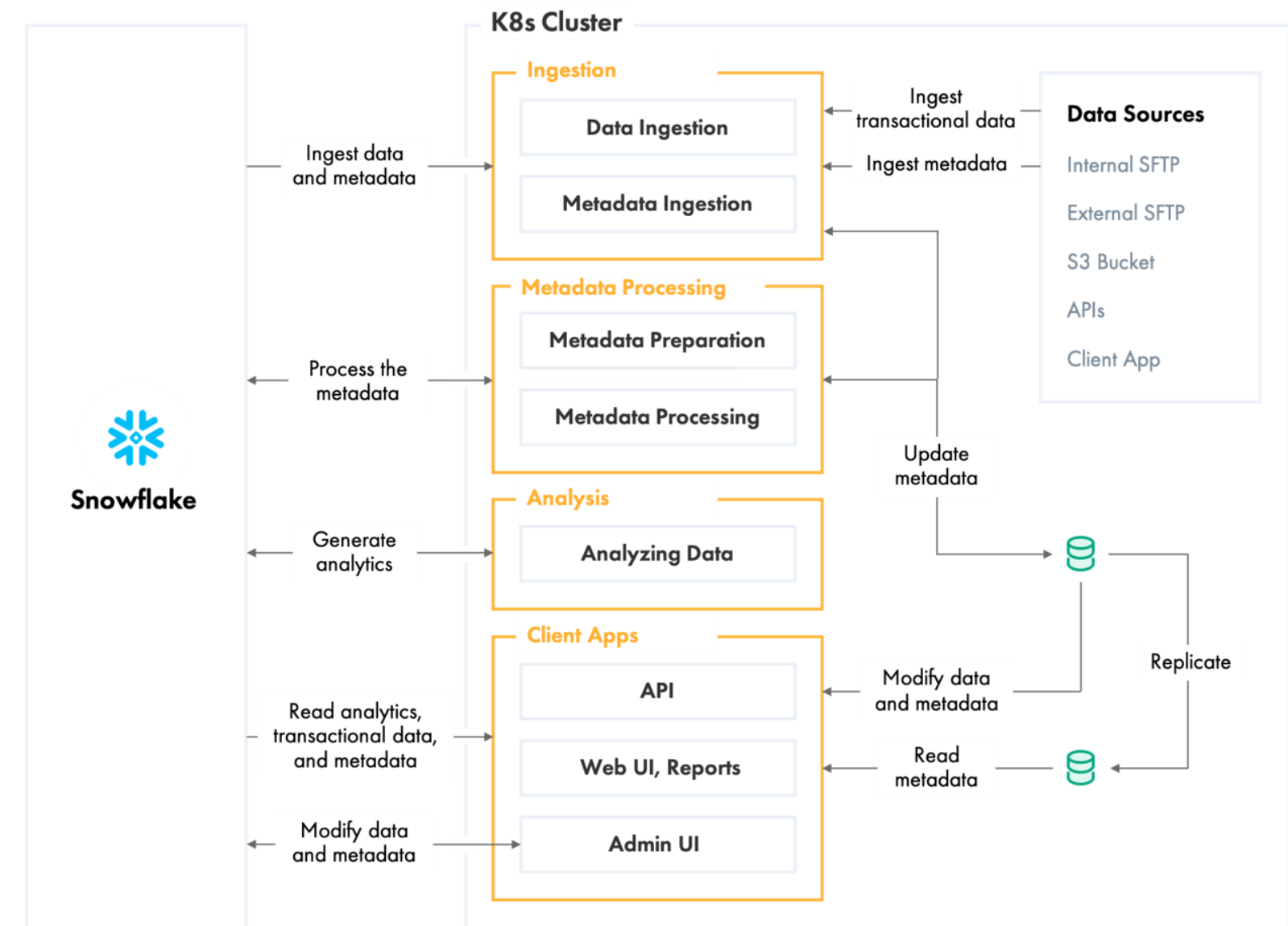
Migration to Microsoft Azure with on-Site Big Query Data Ingestion

DataArt

Client

The client is a technology solutions provider that specializes in providing end-to-end solutions to corporate clients in the areas of Data and AI, Modern Workplace, Business Applications, Cybersecurity, and Digital Strategy.

Challenge

The client needed the migration of two containerized full-stack and mission-critical monitoring and data visualization tools from Google Cloud services to Microsoft Azure.

The client's front ends were implemented in React, while their back ends were written in Python and Javascript. Data was sourced via IoT input from on-site machinery ingested into Google Big Query. While the front end and back end had to be migrated, data would continue to be collated in Big Query, so a secure connection would have to be established as well.

Solution

Keeping in line with the client's existing practices, their destination infrastructure had to be built from code using Terraform before the two applications in question could be migrated. The team leveraged the features offered specifically by the paid-for Terraform Enterprise web interface, using it to manage multiple environments and infrastructure deployments by several engineers. AzureRM and AzureAD were used as Terraform providers to describe resources. At the same time, popular Terraform modules (virtual network and key vault, among others) were leveraged to standardize the implementation and achieve brevity. The aim was to create a clean, pared-back infrastructure to ensure the scalability and maintainability of the applications.

Results

Azure proved to be a mature and feature-rich ecosystem that offered the client all the necessary capabilities for their applications. As a result, the client has benefited from the versatility and relative simplicity of using cloud services like Microsoft Azure to streamline their IT processes.

Success Stories

Contacts

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