ADVANTAGE AZURE AZ Data & AI

Data Management for Business Operations

Large Global Technology Provider

HCL Digital & Analytics by HCL Technologies

Customer Profile

Customer is a **Global multinational technology conglomerate** with headquarters in Redmond, Washington. It develops, manufactures, licenses, supports, and sells horizon of Software Product and Services including Cloud Platform with huge Data and AI Landscape. With US$ 143Bn Revenue and 156000+ workforce across the Globe, this enterprise is a landmark organization for handling Data most instrumentally for its Customers and even for their internal purposes.

Engagement Overview

7 Years, 70+ Engineers

10-17 Feature Teams

60% offshore

700+ sprints

2 PB at Rest 100 TB In Motion

3 value ideas per quarter

$10Mn+ Value Creation

7/7 CSAT

- ❑ Part of global operations for business services
- ❑ Provides services to various LOBs within Operations (Commercial, OEM, MBS, Commerce etc.)
- ❑ Provides BI Operational, Analytics, CRM, BPMS & SharePoint solutions
- ❑ Lead & Participate Ops BI architecture & roadmaps
- ❑ End-2-End ownership of delivering user stories (PO, TPM, Development, UAT and Deployment)
- ❑ 100% onsite to 40:60 on / off model
- ❑ Scaled to take on BPMS and CRM work
- ❑ Transition from multiple vendors to HCL
- ❑ Work as Partner rather than Vendor

Key Challenges

- Fragmented Data Islands
- Disparate / Obsolete tech. stack
- Manual Intervention, Suspect Data Quality
- Fragile / non-scalable Infra
- Focused on Operational Reporting
- Ad-hoc Data Governance
- No Common Framework, Lack of standardization & Integration
- Long Time to Market, Poor User experience
- No Security Compliance
- No / partial usage data

Solution Overview

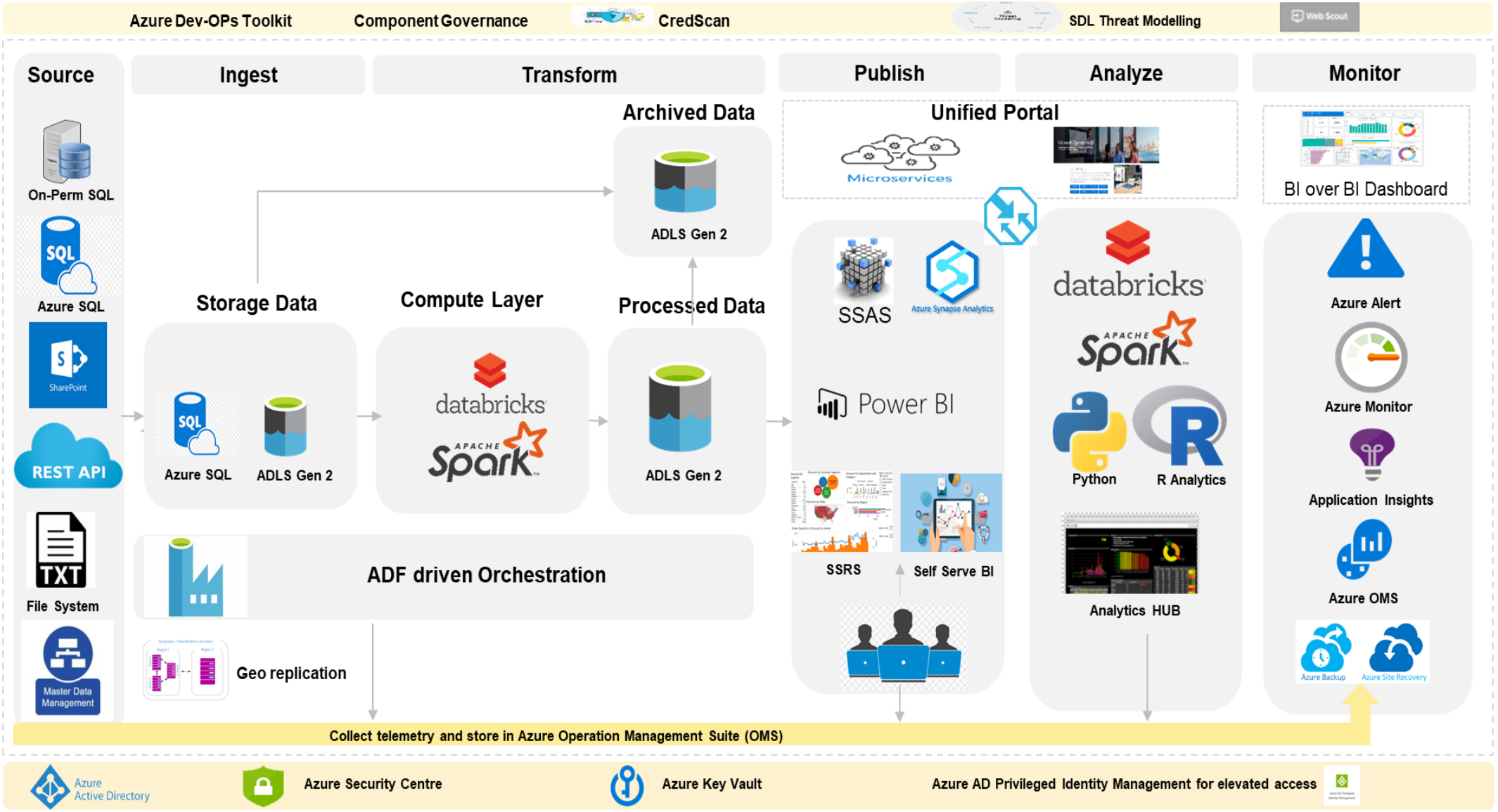
Key Features

- ❑ Hybrid Data acquisition Azure DL
- ❑ Migration to SQL 2016 & Azure
- ❑ Data Quality Framework and DataOps Standards
- ❑ Data Science (Predictive, Mining, Forecast) etc.
- ❑ BI University, Data Dictionary, Discovery
- ❑ BI on Agile, Automation, DevOps
- ❑ Portals, Dashboards, Self Serve, NRT

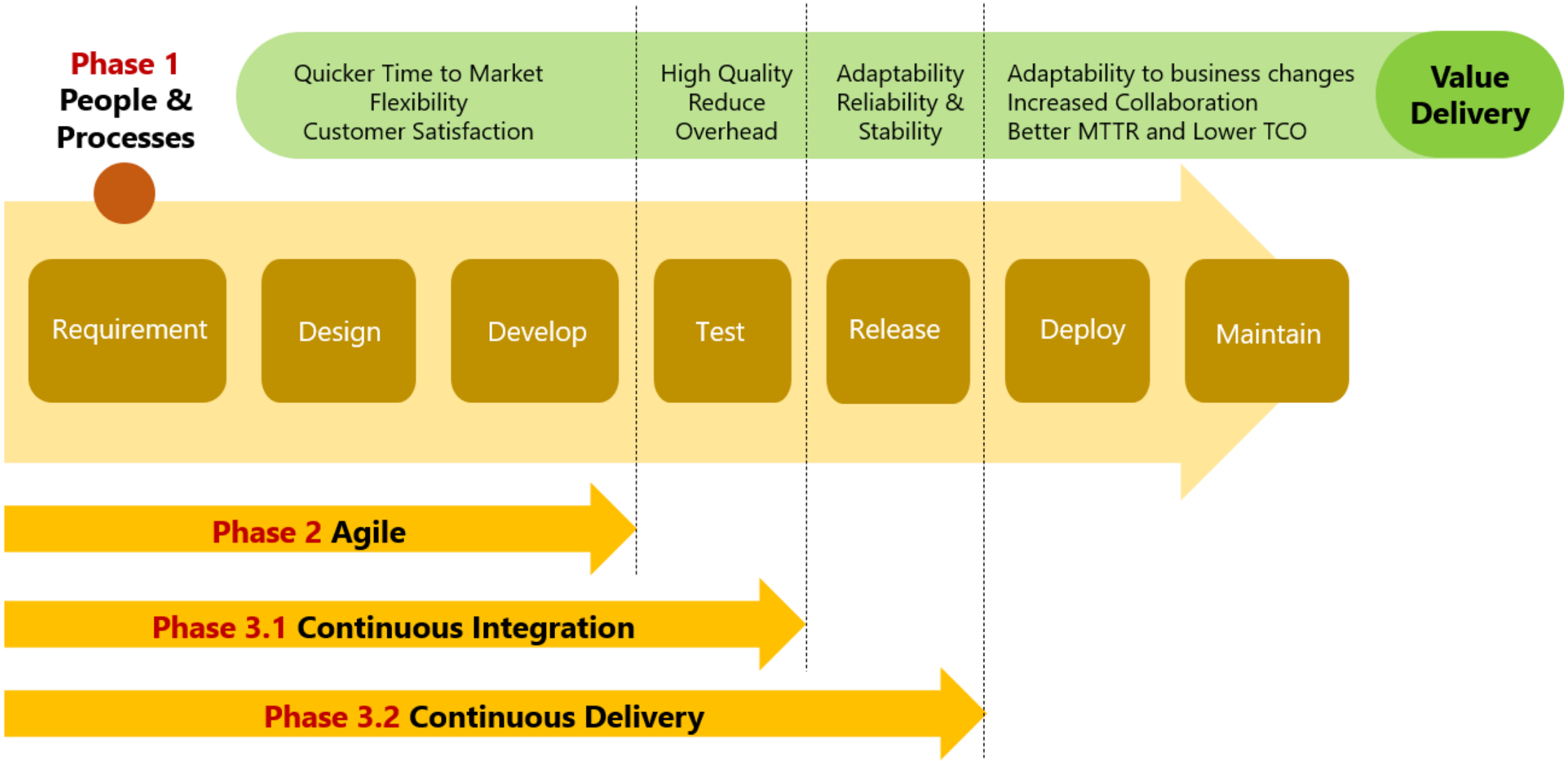
Technology Used

- Azure Data Lake
- Azure Data Factory
- Azure Databricks
- Azure Cosmos DB [Polaris, iScope, SANGAM, Cosmos PowerShell, SQLizer, JobMan, Jarvis]
- SQL Datawarehouse
- SQL Azure and SQL Server 2016 (SSIS, SSAS, SSRS, DAX, MDX)
- Azure ML
- Programming Platforms like Python, R, Spark, Scala
- Power BI, Excel, PowerPivot, PowerView
- Application Insights and Azure Log Analytics
- Azure Active Directory
- SharePoint Online and Dynamics CRM Online
- K2.NET
- NET, Angular 4.0
- Kusto Cluster, MIST, BIML Studio

Architectural Construct



DataOps Life Cycle Snapshot



DataOps Automation Enablers

Continuous Integration	3NF ETL Framework; Data Vault ETL Framework; Auto Generation of Views; Build Automation
Test Automation	TA Framework; Data Quality Framework; BVT in Progress
Continuous Deployment	Backup & Restore; SSIS Deployment; SSAS Deployment; SSRS Deployment; R Deployment; DR Setup
Release Management	VSO Artifactory; Gated Deployment
Application Performance Monitoring	Business Activity Monitoring
Load Test & Auto Scale	Performance Test
Infra As A Code	ARM Templates

Business Impact / Value Delivered

- Zero issues reported at quarter close (past 3 years)
- 98% (Max) volume forecasting prediction accuracy
- $7M+ savings on partner commissions payouts (till date)
- 20 days reduction in product launch life cycle (for each product)

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Thank You

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