

Business Operations

Data @ Scale

7+ Years Partnership

700+ Sprints, on-time delivery

70+ strong engineering team

\$10+Mn of Value Creation

HCL Frameworks Leveraged

▶ Implementation Highlights:

- E2E Managed Data Pipeline for 120+ data sources
- Operation lifecycle process automation for worldwide product launches (taxation, pricing, legal, currencies, regulatory compliance)
- Data over BPM (unique implementation with data and BPM integration)
- Legacy on-premise migrated to Azure PaaS (zero business downtime)

▶ Key Components & Features:

- **Modern BI** – Big Data; Azure PaaS with open source
- **Analytics** – Volume Forecast; Anomaly Detection, Text Mining
- **BPM** – Product launch and pricing workflow
- **PSA** – Project service automation for Product Launch
- **Portals** – LOB wise Micro-portals
- **Dashboards** - CxO level near real-time enterprise operations
- **BI over BI** – covering usage, performance, costing and infra
- **War-Room** – 24x7 Worldwide coverage during quarter close

▶ HCL Tools, Accelerators & IP's Leveraged:

- Leveraged Sketch framework to build connected data platform
- Leveraged R2D2 framework to build data quality components

▶ Value Creation Initiatives:

- Data Vault data model implementation (better Dev Productivity)
- Cube generation automation using metadata (better time to market)
- Quarter close process streamlining and automation (business impact)
- Data Discovery for search & find data objects (better User Experience)

▶ Engineering Best Practices:

- Secure development life cycle to handle GDPR, PII
- SOLID architecture approach for scalable, flexible system
- Detailed BI over BI enabling deep performance insights
- BI University – Central repository for self-paced end user learning
- Scaled agile execution; DevSecOps

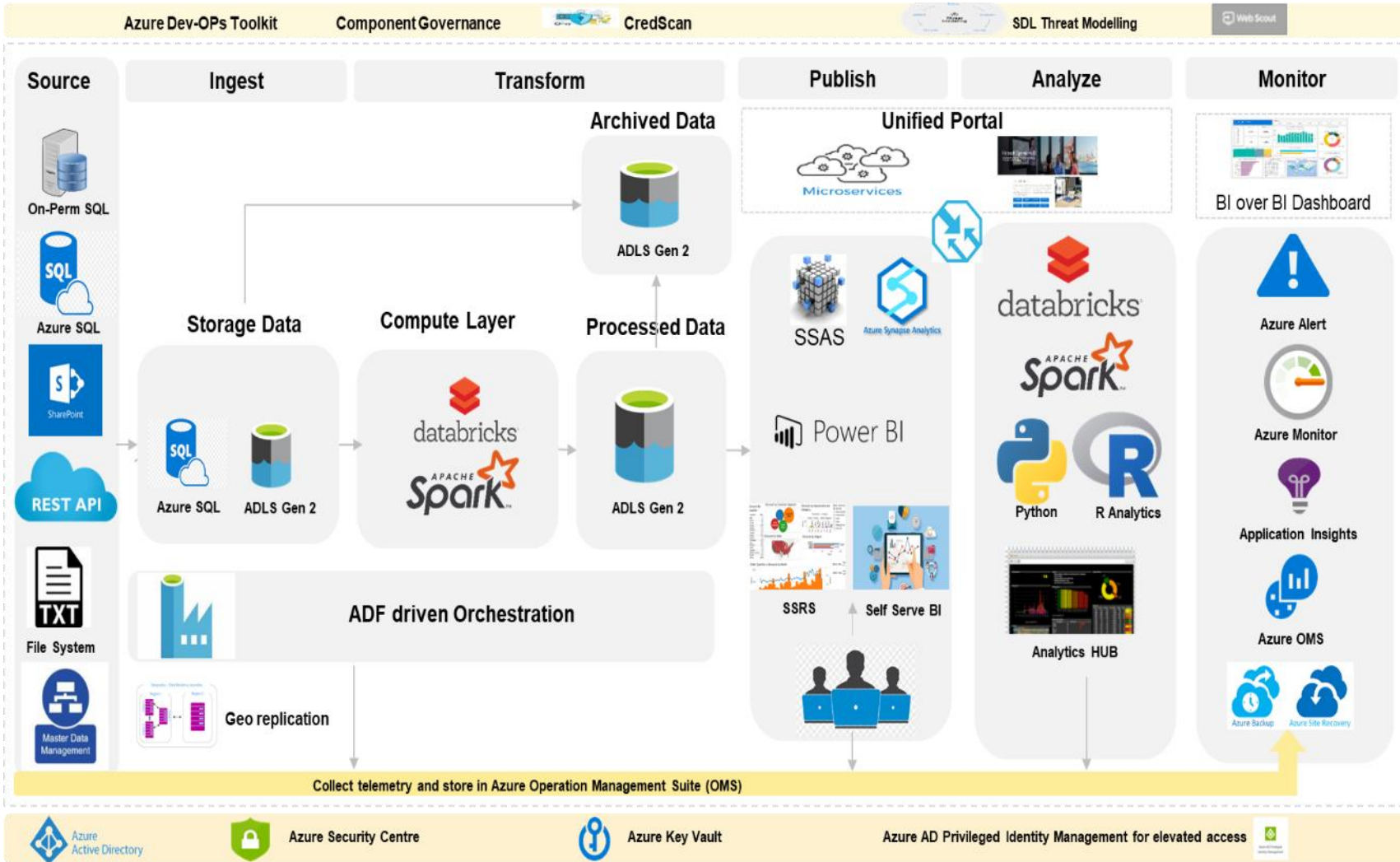
▶ Business Impact Created:

- 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)



Engineering Driven Approach

Azure Deployment Reference Architecture



Key Highlights

Goal : Highly available, resilient and scalable platform

Automated E2E Data Pipeline

- ADF orchestrated data ingestion enabled by HCL accelerators and reusable components
- Scalable compute layer to handle automated transformation with robust data quality and enrichment rules
- Hot, Warm and Cold paths to access streaming, NRT and Archive data

Reporting / Portal

- Visualization platform that is compliant to existing ways of data access and newer routes
- Secured portal to provide external users access

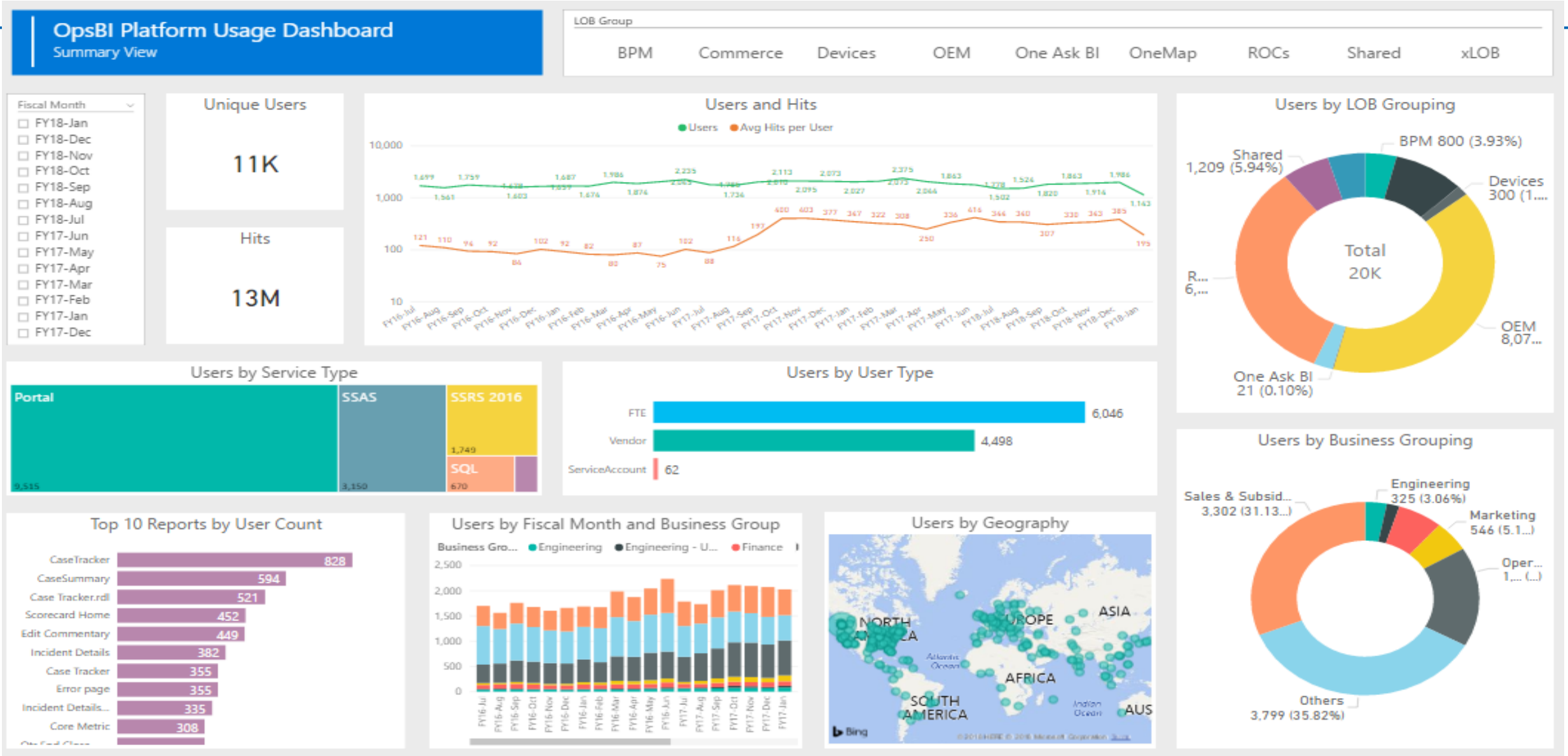
Pragmatic use of Industry Tools

- Python, R – Hybrid approach, leverage best from both tools

Secure

- Adhere to Microsoft policies and Secure Development Lifecycle

BI Over BI – CXO Dashboard(s)



User Friendly Self-service Portal(s) - One Stop Shop for users



Business Intelligence

BiOps is a modern engineering platform that currently enables and empowers over 2000 business users across Microsoft to make better and faster decisions through managed reporting, self-service and data access. Offers L2E BI capabilities through shared Data Acquisition and Integration, Optimized Tabular models, Consumer interfaces via Power Views and Excel reports, Business and Personalized dashboards via Power BI.

- ROC BI
- COMMERCE
- DEM BI
- ONEMAP
- NGVL
- DYNAMICS
- AD OPS



NGVL Open EA

Access Guide Data Discovery 24x7 Support Self Service

Announcement / Awareness
MSOC BI Portal is launched!
Planned downtime (Sep/12 - Sep/14)

Report Catalog

All	Report Name	Description	Report Type	Report Owner	Business Owner
SOX Compliance	MG23MG03MagnumExceptionsAndOverrides	Report showing all exceptions from Magnum, plus those which were overridden.	dash	Nicole Harris	
VL Close	MG24-MagnumOptOutReport	Report showing all tickets from Magnum set to OptOut	dash	Nicole Harris	
VL Non-Close	MG25-SOXCompletenessMissingMagnum	Report showing all in-scope agreements, amendments or orders from MSL which did not go through Magnum, and are being flagged for further follow up	dash	Nicole Harris	
eLOB	MG25-SOXCompletenessMissingMagnum	Report showing the full history of all in-scope agreements, amendments or orders from MSL, and their status in Magnum	dash	Nicole Harris	
GESO - Velocity	CaseTracker	Delinates near real time case tracking reporting for VL Field Sales user to ensure cases are resolved within quickest manner possible.	dash	Roseann Faire	
GESO - Volume	CaseHoldSummary	Delinates near real time case tracking reporting for VL Field Sales user to ensure holds are resolved within quickest manner possible.	dash	Roseann Faire	
GESO - Quality					
GESO - MCS Engrmt Delivery					



OEM BI Central is the resource for your OEM data needs

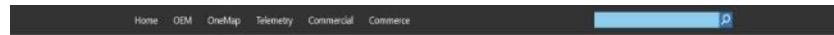
Need Help Understanding Data?

Check out Power BI dashboards and reports in the business groups below

- CRM**
Gain insights into learning & revenue trends
- Supply Chain**
Track operational life cycle events of our products
- Channel Management**
Monitor partner performance
- Marketing**
Gain insights into Microsoft product & partner device performance
- Account Management**
Track regional trends of our products

Browse these dashboards to explore and get insights into the various product lifecycle stages

- Fulfillments
- Bindings
- Returns
- Usage
- Partner Data Quality



BI University

Enabling the transformation of BiOps through data insights.



- OEM Training Portal
- Commercial Training Portal
- ONEMAP Training Portal
- COMMERCE Training Portal
- SCORECARD Training Material
- GESO Training Material
- BPM Training Material

- Technical**
Power BI
SQL
SSRS
SSRS
- Events**
Data Analytics Day
- Branding**
MS Ops Branding
Brand Central icons
- Resources**
OpsBI Branding
Accessibility Guidelines
Accessibility Compliance
- Data Dictionary**
Commercial
Commerce
Onemap
OEM BI



Services



- BI University**
Welcome to BI University! The customized learning platform you count on to stay relevant, with tools that measure your skills and solve your business problems faster.
- Data Discovery**
Instantly search for data assets across a centralized data catalog and add new data assets to the repository for discoverability
- Telemetry**
Telemetry dashboard provides Usage, Support and SCOM metrics to gain insights on SOOps capabilities and the current infrastructure.
- 24x7 Support**
Report issues related to Access, Data Quality, etc through an online support tool.

World Wide Ops – DevOps

1 Click Deployment

15 Feature Teams

100% Increase in Velocity

Challenge

- Independent Development and Operations sphere of influence
- Multiple handover resulting in many failures
- High cost of maintenance as solutions not built with operation focus
- Time consuming manual deployments with high effort
- Resource intensive, manual build, testing and release etc.
- Less adaptable to changes and business direction
- Building a culture of DevOps

Solution & Contribution

Recommended and Evangelized DevOps adoption

DevOps workshops and brown bags

Built end-2-end DevOps framework in collaboration with operations

Build Automation and Gated Release

Test Automation and Data Quality

Performance automation with Auto-Scalability

One Touch Deployment

Benefits

- Integrated Dev and Ops as one team
- Performance oriented culture
- Continuous Integration and Deployment resulting in productivity
- Increased velocity in sprint teams
- Test automation improving quality
- Efficient utilization of resources with high cost saving
- Increased responsiveness and reliable delivery
- Better feedback loop resulting in continuous improvement

Visual Studio Online, BAML, Power Shell, C#, Test Automation Framework, SQL Server Suite, COSMOS, Azure IaaS, Azure PaaS