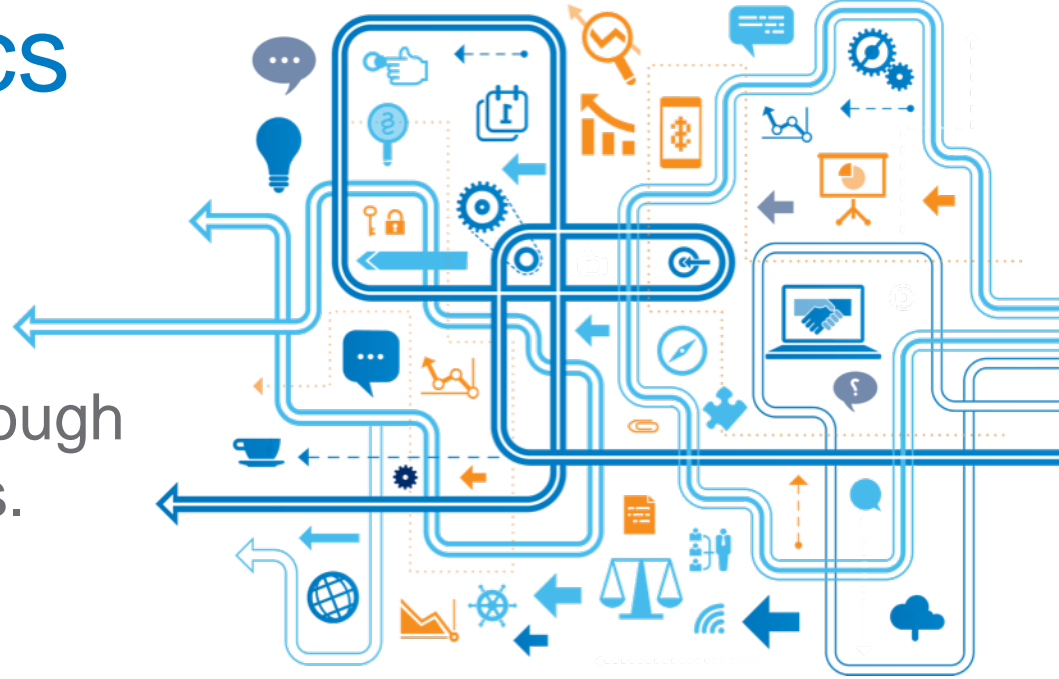# Big Data Analytics

Helping companies transform into the future through innovative thinking solutions.

Advanced Energy Conference 2018

Infosys enables many of the world's largest enterprises to change rapidly in today's dynamic global business environment.

CONSULTING

Global advisory services to top companies for strategy, process engineering & transformation programs. Our ideas and thinking help organizations reshape their future through unique and creative problem solving.

INNOVATION

Implementing the latest technology solutions and innovations to help organizations through digital transformation. Our services create unrivaled operational excellence and efficiencies to drive change at scale.

IT DELIVERY

Setting up and running global delivery centers and outsourced operations to drive technology integration, application development and systems maintenance. We help our clients scale and economize operations.

Overview of Utilities Experience
End-to-end services from consulting to deployment for electricity, gas & water industries

20+ Years Experience 45+ Global Utilities	6 Out of Top 10 US Utilities 6 Out of Top 10 Europe Utilities	4500+ Domain Experts with 1100+ Utility Domain Certified	Utility Products, Pre-configured solutions	100% Successful Projects 15+ Development Centers

Generation & Supply — **Network** — **Retail/ Customer Service**

Supply Chain
BI
Maximo, SAP, Oracle
Mobility
Energy Trading & Risk Management
Design & Estimation
AMI & MDM
GIS
Enterprise Asset Management
EAI
Transportation & Logistics
Enterprise Resource Packages
Analytics
Legacy CIS Modernization
CIS Replacement
Logistics & Optimization
Smart Grid
Field Services Management
Network Operations (DMS, OMS, DA, SA)
Rate Case & Regulatory Reporting
HR, Timekeeping, Finance, Law
ECM
SOA
Utility Digital Transformation

END TO END OFFERINGS

Alliances

SAP · Microsoft · ORACLE · IFS · Crowder Consulting · c global
SAS · MWH · GE · GE Energy · FERRANTI computer systems · MECOMS
IBM · Itron · esri
OPEN TEXT · ALSTOM · OSIsoft

Membership/ Industry Partnerships

METERING.COM · e a e m · WATER UK · NIST · IEC International Electrotechnical Commission
World Smart Grid Conference Middle East 2012 · OpenSG users group · EnergyPulse · International
MILESTONE UTILITY SERVICES · AMI MDM

Industry Recognition

- Recognized in Pike Research Utility Billing & CIS Report
- Recognized as Enterprise Analytics vendor in **Green Tech Media report for UTILITY AMI ANALYTICS FOR THE SMART GRID**
- Utility Self-service product recognized as one of Top 4 products in Gartner Multi-channel Utility Customer Self-service
- Top 3 Oracle service providers by each of Forrester Wave, Gartner Magic Quadrant, IDC MarketScape

Infosys® | CONSULTING

Infosys Data and Analytics focuses on driving new possibilities with our clients to ensure Business Insights, Operational Efficiency & Data Monetization

12200+ Dedicated BI Consultants	2500+ Successful Engagements	450+ Active Client Relationships	200+ Analysts and Data Scientists	20+ Collaborative BI Vendor Alliances

SAP BI/ HANA	2750+
INFORMATICA	2500+
ORACLE BI	2200+
IBM COGNOS	1730+
AB INITIO	1070+
IBM DATA STAGE	930+
MICROSTRATEGY	790+
TERADATA	750+
MICROSOFT BI	730+
VERTICA	120+
HYPERION	740+
DATA SCIENTISTS	200+
BIG DATA & ANALYTICS	1100+
TABLEAU/ QLIKVIEW	100+

Strategy and Roadmap

Implementation and Rollout

Development and Maintenance

Migration and Upgrade

System health and Performance

Program and Org Change Management

Knowledge Services and Data Insights

Architecture and Governance

Platform Engineering

5 out of top 10 High Tech companies

4 out of top 5 US Banks

7 out of top 10 Global Auto Manufacturers

3 out of top 5 Health Plans

8 out of top 10 Global Pharmas

8 out of top 10 US Retailers

Business Intelligence and Analytics

Enterprise Performance Management

Data Warehousing and Big Data

Master Data Management

Data Quality and Governance

Data Integration and Federation

In-memory Computing

Planning, Budgeting & Forecasting

Financial Consolidation

Data Visualization

Mobile BI

Self Service BI

Internet of Things

Microsoft · SAP · ORACLE · MicroStrategy Best in Business Intelligence™ · IBM · INFORMATICA The Data Integration Company™ · SAS · TERADATA · mongoDB · cloudera · splunk> · amazon web services · talend · tableau SOFTWARE · NetApp · pentaho open source business intelligence · CITRIX

Rated positive in Gartner Market Scope for BI/ IM, North America

Rated Leader in Forrester Wave; BI Service Providers

1st First prize at the 'SAP HANA One Innovative App Contest'

3 Won 3 Oracle Titan Award in last 4 years in Oracle BI and Hyperion
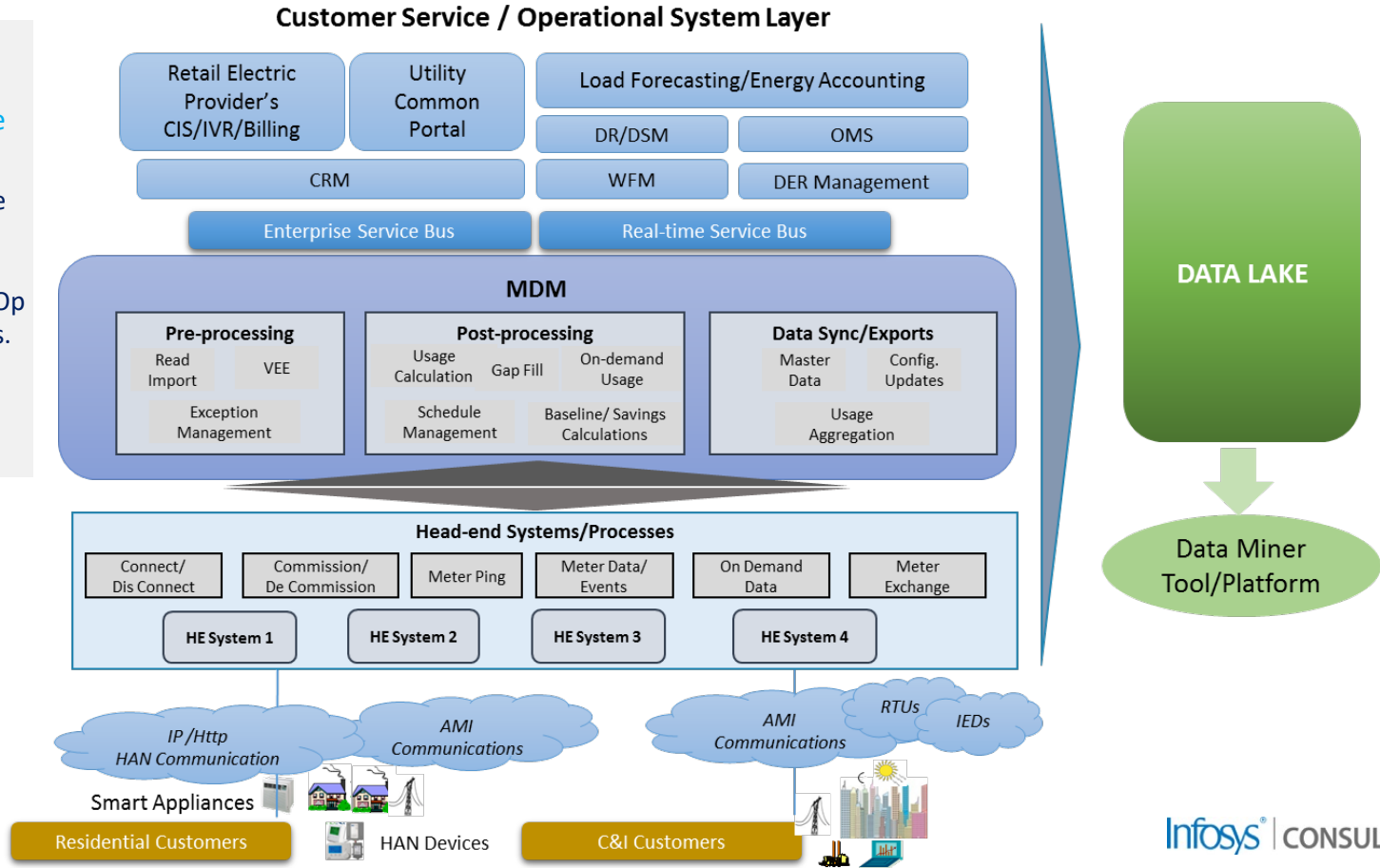
Infosys® | CONSULTING

We are implementing change at many of the world's top **utility companies**. Our programs deliver bottom-line impact.

Case Study: Single Platform for Business Intelligence & Data Analytics

Client: Large Electric & Gas Utility Holding Company with multiple Op Cos

Project: Unifying a single MDM platform that will ingest data from all systems across multiple Op Cos and external systems. Deliver new capabilities and analytics from the platform.

Customer Service / Operational System Layer

Retail Electric Provider's CIS/IVR/Billing	Utility Common Portal	Load Forecasting/Energy Accounting
		DR/DSM · OMS
CRM		WFM · DER Management
Enterprise Service Bus		Real-time Service Bus

MDM

Pre-processing
- Read Import
- VEE
- Exception Management

Post-processing
- Usage Calculation
- Gap Fill
- On-demand Usage
- Schedule Management
- Baseline/ Savings Calculations

Data Sync/Exports
- Master Data
- Config. Updates
- Usage Aggregation

Head-end Systems/Processes

Connect/ Dis Connect	Commission/ De Commission	Meter Ping	Meter Data/ Events	On Demand Data	Meter Exchange

HE System 1 · HE System 2 · HE System 3 · HE System 4

DATA LAKE

Data Miner Tool/Platform

IP /Http HAN Communication

AMI Communications

AMI Communications

RTUs · IEDs

Smart Appliances

Residential Customers

HAN Devices

C&I Customers

Infosys® | CONSULTING

Single Platform for Business Intelligence & Data Analytics

Client Overview

Large Electric & Gas Utility Holding Company with multiple Op Cos

Challenges
➢ Roadmap
➢ Organizational & Tech Readiness
➢ Data Understanding & Quality

Project Scope
➢ Create a single platform that would ingest data from all systems within, and some outside of company.
➢ Deliver new capabilities and analytics from the platform.
➢ Provide data to web based interfaces used by residential and commercial customers
➢ Create an environment for data scientists

Solution Highlights & Benefits
➢ Architecture was 3 layers: Raw, Foundation and Columnar.
➢ Dimensional model to support real time reporting and dashboards.
➢ Benefits to company expected to be more than double costs - Energy savings, Load reduction, Customer satisfaction, Convergence
➢ Significant customer savings also expected

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