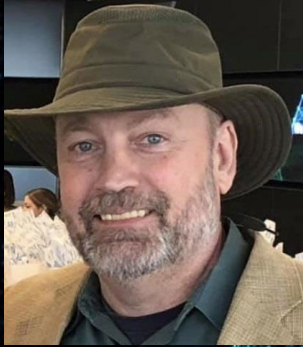


DM
RADIO

The logo consists of the letters 'DM' in a large, bold, sans-serif font. The 'D' is a vibrant red with a glossy finish, while the 'M' is a metallic grey with a brushed metal texture. A stylized microphone is integrated into the right side of the 'D', with its body in red and black and a silver grille. Below 'DM', the word 'RADIO' is written in a smaller, grey, sans-serif font. The letter 'O' is replaced by a vinyl record icon, showing a red center and black concentric grooves. The entire logo is set against a dark, grey, slightly blurred background that suggests an urban or industrial setting.

FEATURING:



Host:
Eric Kavanagh,
CEO,
The Bloor Group



Speaker:
Kevin Petrie
Senior Director of
Product Marketing,
Attunity



The key problems that DataOps teams face and how they can be prevented from derailing the show.



Kunal Agarwal
@KunalUnravel

<https://www.techradar.com/news/top-challenges-faced-by-dataops-teams>

The challenges keeping companies from leveraging their data assets to the maximum



Kunal Agarwal
@KunalUhravel

<https://jaxenter.com/overcome-common-issues-dataops-157285.html>

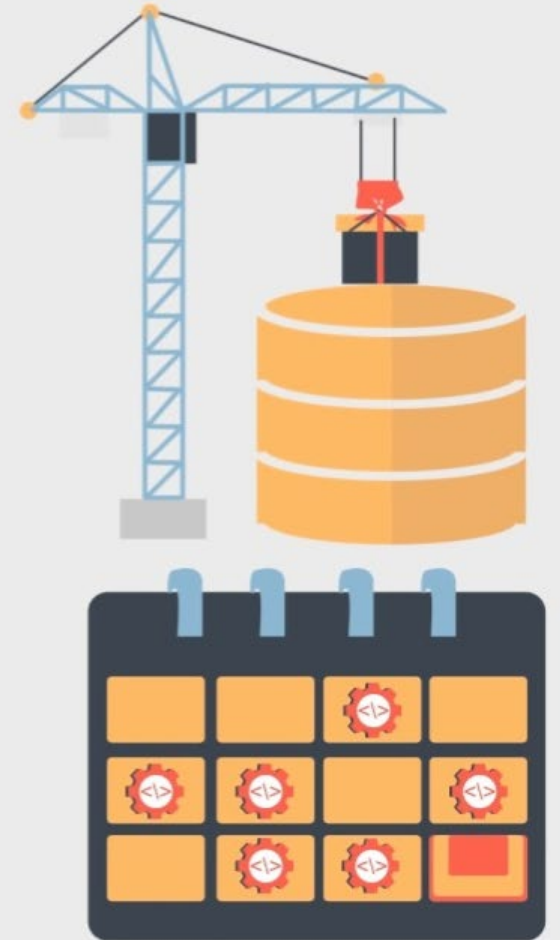
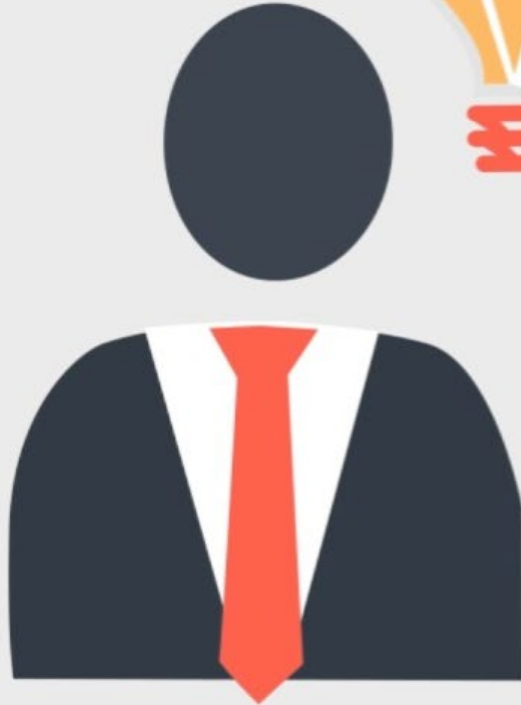


How dataops
can help
make your
business
faster,
stronger and
ultimately,
better



Kunal Agarwal
@KunalUnravel

<https://www.information-age.com/deploy-dataops-business-better-100100001/>



Unlike its close cousin DevOps, which focuses on operations and development teams, DataOps is geared towards the data developers, data analysts or data scientists

<https://insidebigdata.com/2019/03/29/dataops-the-new-devops-of-analytics/>

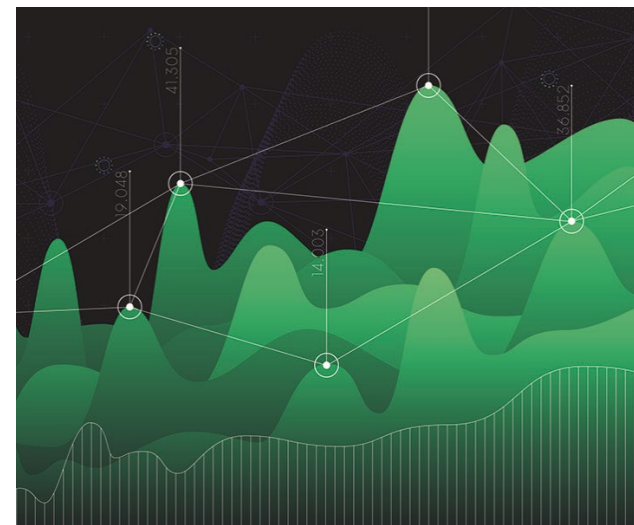


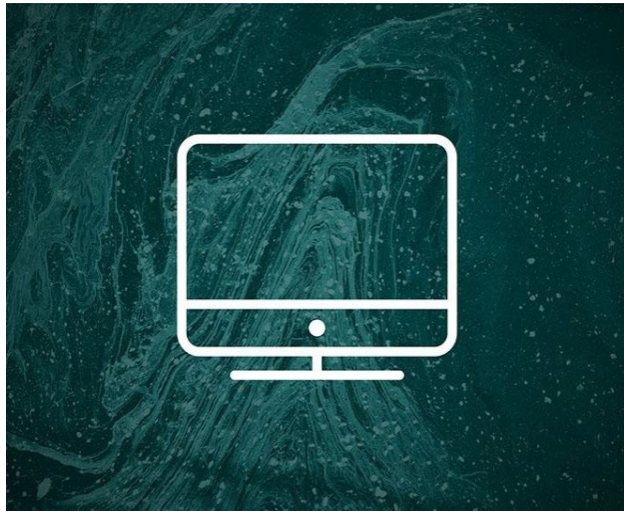
Understanding DataOps & DevOps: Different approach, but same goal



Nenshad Bardoliwalla
@nenshad

<https://www.information-management.com/opinion/understanding-dataops-devops-different-approach-but-same-goal>





One common misconception about DataOps is that
DevOps applied to data analytics

<https://medium.com/data-ops/dataops-is-not-just-devops-for-data-6e03083157b7>

DataOps is the latest Agile practice that brings together the existing DevOps teams with data engineers and data scientists to support all companies that are data-focused.



Suresh Midrakola
[@suresh_rider](https://twitter.com/suresh_rider)

<http://techgenix.com/dataops/>



How to Adopt DataOps?

[https://www.xenonstack.com/
insights/what-is-dataops/](https://www.xenonstack.com/insights/what-is-dataops/)

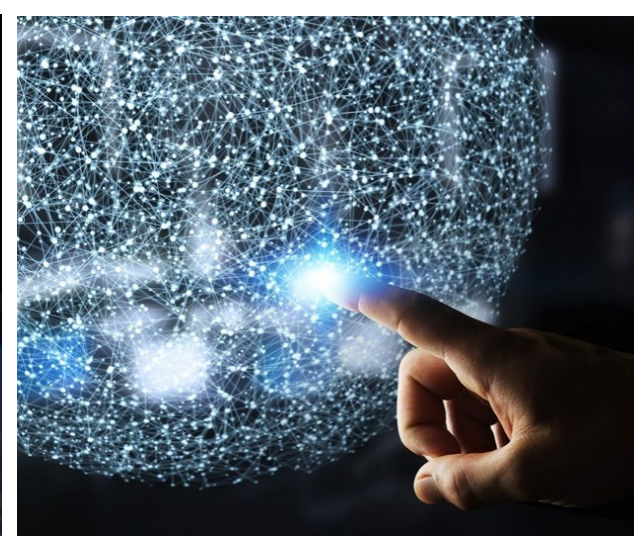


Benefits of DevOps and DataOps to adapting Organization



Vikash Kumar
@vikashv2v

<https://devops.com/devops-dataops-catalysts-for-organizational-transformation/>



Central to DataOps is the need to align people, processes and technology around the flow of data in the enterprise



Eric Schrock
@ericschrock

<https://www.forbes.com/sites/forbestechcouncil/2018/11/16/dataops-accelerates-innovation/#1e1bad682dbc>



DATAOPS FOR MULTI-CLOUD STRATEGIES

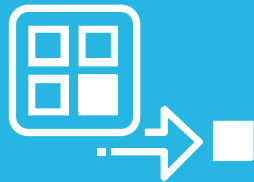
DATAVERSITY WEBINAR

KEVIN PETRIE
SR DIRECTOR, ATTUNITY

APRIL 4, 2019

ATTUNITY: MODERN DATA INTEGRATION

THE LEADING PLATFORM FOR DELIVERING DATA EFFICIENTLY AND IN REAL-TIME TO CLOUDS, DATA LAKES, AND STREAMING ARCHITECTURES



LEADING provider of
Streaming CDC

Support most sources with
best performance and
least impact



LEADING cloud DB
migration technology

Already moved over
120,000 databases to public
Cloud platforms

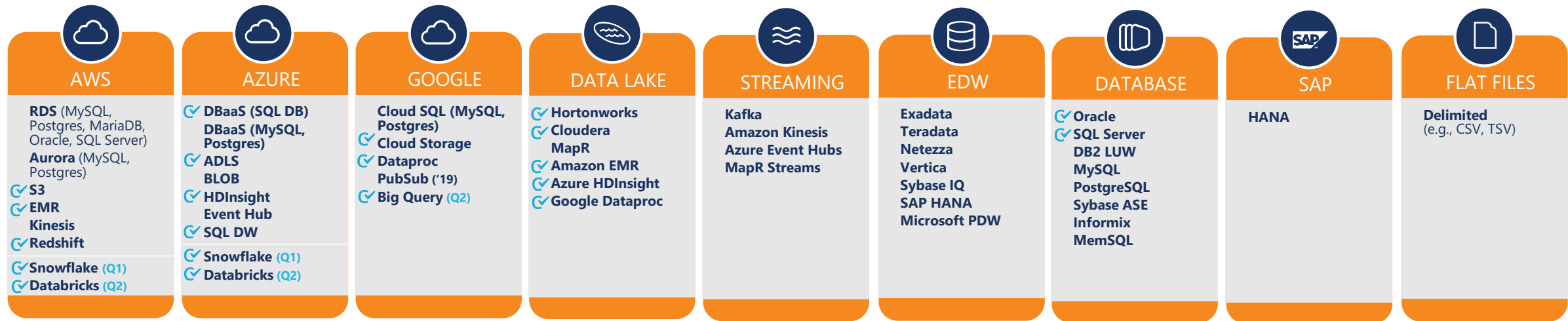


LEADING in agility and
platform coverage

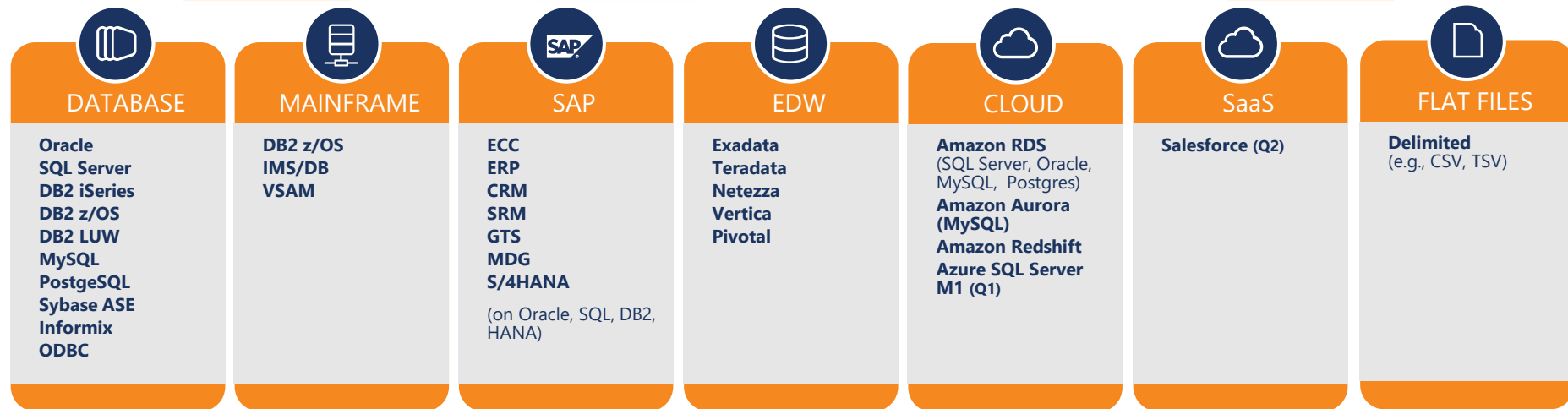
Pre-packaged automation of
complex processes and
modern UX to accelerate
delivery by "data people"

COMPREHENSIVE PLATFORM INTEGRATION

TARGETS



SOURCES



COMPREHENSIVE CLOUD INTEGRATION

	aws	Azure	Google Cloud Platform
DBaaS	RDS (All)	All	All
STORAGE	S3 ✓	ADLS ✓, BLOB	GCS ✓
HADOOP	EMR ✓	HDInsight ✓	DataProc ✓
STREAMING	Kinesis	Event Hubs	Pub Sub (1)
DWaaS	Redshift ✓	Azure SQL DW ✓	BigQuery ✓ (2)
OTHER DWaaS	Snowflake ✓	Snowflake ✓	
SPARK	Databricks ✓ Q2	Databricks ✓ Q2	

1. Replicate support for Google PubSub planned for 2019.
2. Google BQ supported today through GCS or Kafka. Direct load planned for Q2/19.

WHY MULTIPLE CLOUDS?

ENTERPRISE MOTIVATIONS

TRIGGERS

NEW/CHANGED
BUSINESS NEEDS

LEARNING CURVE

INDEPENDENT
BU DECISION



IMPROVE SLAS – PERFORMANCE, DOWNTIME



REDUCE OPERATING COSTS



HEDGE COMPETITIVE RISK



SPECIALIZE FOR ADVANCED ANALYTICS

DECISION TRADE-OFFS

PROS



CONS

- SLA PERFORMANCE
- LOWER COST
- HEDGED COMPETITIVE RISK
- SPECIALIZED TOOLS

- MANAGEMENT OVERHEAD
- SWITCHING COSTS
- ADMINISTRATIVE COMPLEXITY

MULTI-CLOUD SCENARIOS



**CSP CHANGE/
REBALANCING**



COST REDUCTION



**DIVERSIFICATION BY
INITIATIVE**



**DEV IN CLOUD A
PROD IN CLOUD B**



BURST TO CLOUD



**DISASTER
RECOVERY**

CLLOUD SELECTION CRITERIA

PRICING

BI TOOLS

DATA PROCESSING/TRANSFORMATION

ON-PREMISES SYSTEM AFFINITY

LOCK IN RISK

CODING SUPPORT

ENTERPRISE STRATEGIES AND PRACTICES

UP FRONT

- 
Carefully define domains and platform selection criteria
- 
Take phased approach – TestDev/PROD, mission criticality, risk
- 
Assess lock-in risk
- 
Ensure security and privacy SLAs with CSP
- 
Keep it simple

ONGOING

STREAMLINE DATA FLOW

KEEP DATA MOBILE

MONITOR

ADJUST

MULTI CLOUD DATA REQUIREMENTS



PLATFORM INTEGRATION

- Relocate data and workloads as needed
- Reduce process variation between end points



AGILE MIGRATION

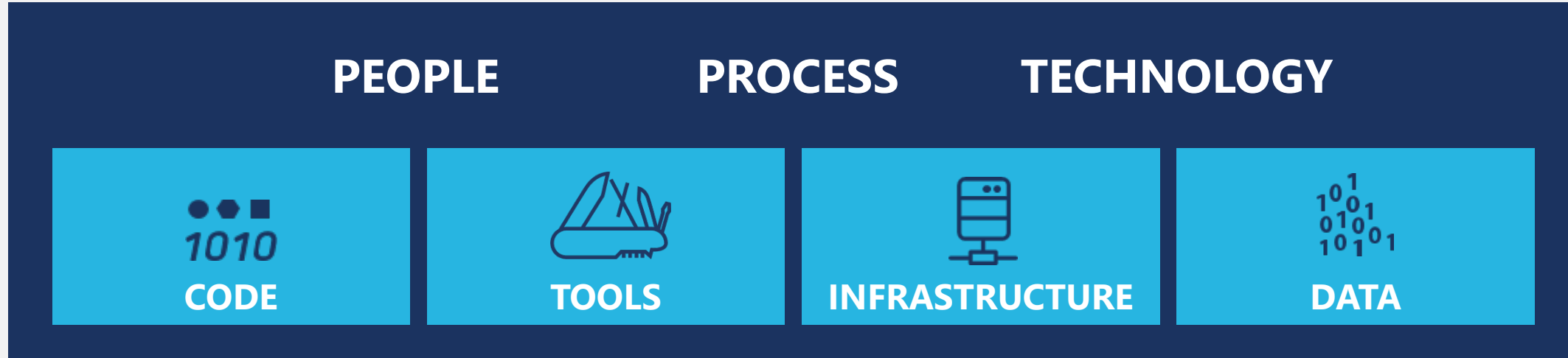
- Accelerate setup and configuration
- Reduce dependency on ETL developers



ANALYTICS READINESS

- Speed data loading and transformation process
- Reduce time and effort of creating, updating data stores

MULTI CLOUD ENVIRONMENTS NEED DATAOPS



- Emerging discipline to build and manage efficient, effective data pipelines
- Applies DevOps of agility and continuous integration
- Seeks to improve collaboration between data managers and consumers

WHY DATAOPS?

CHALLENGES MULTIPLY WITH EACH CLOUD

Increasing analytics requirements create complexity and data flow bottlenecks

Data consumers drive demands that IT cannot meet with existing processes and technologies

Projects are failing due to this friction

"In every pipeline, data must be identified, captured, formatted, tagged, validated, profiled, cleaned, transformed, combined, aggregated, secured, cataloged, governed, moved, queried, visualized, analyzed, and acted upon. Phew!"

WAYNE ECKERSON
PRESIDENT, ECKERSON GROUP

RISING CHALLENGES

DATA VOLUME,
VARIETY, VELOCITY

NEW PLATFORMS

NEW BUSINESS
DEMANDS

CODING COMPLEXITY



STATE OF THE DATAOPS BUSINESS

EARLY DAYS

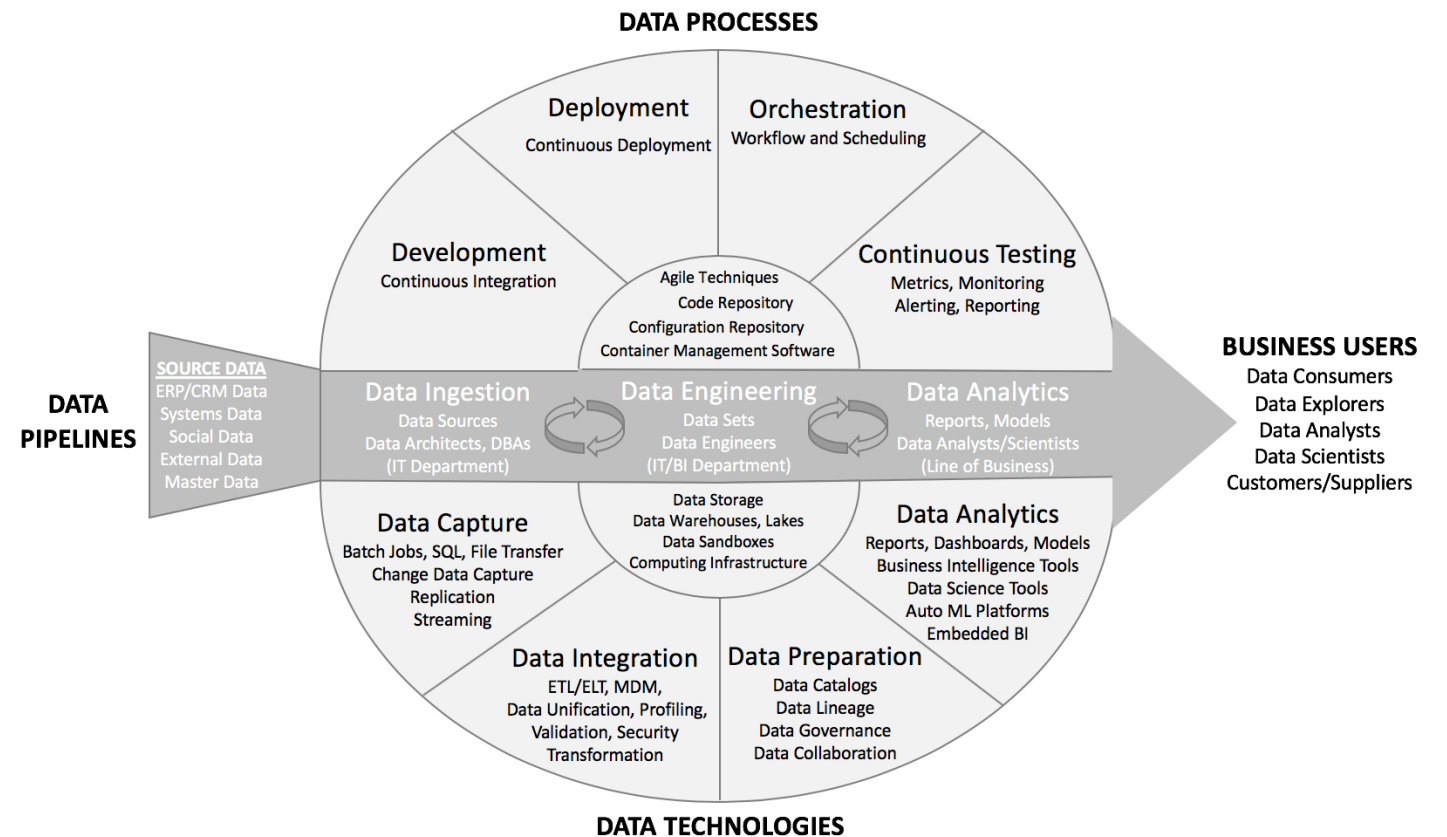
Many organizations are just getting started

First steps: continuous integration and testing

Communication gap persists between data managers and consumers



ADOPTION FRAMEWORK



MODERN ANALYTICS NEED CLOUD DATAOPS

MODERN ANALYTICS

AI/ML

IoT

Predictive

Real-Time

MODERN PLATFORMS

Big Data

Cloud

Data Lakes

Streaming

CLOUD DATAOPS

1. Agile Cloud Migration

2. Real-Time Analytics

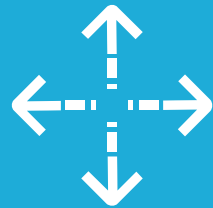
3. Data Lake Automation

4. DW Automation

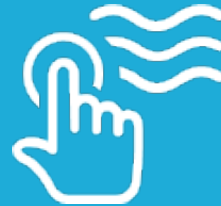
5. Metadata & Control

1. AGILE CLOUD MIGRATION

EMPOWERING ARCHITECTS AND DBAS



**RAPID DEPLOYMENT
WITH NO AGENTS
ON SOURCES**



**100% AUTOMATED
SETUP, EXECUTION
AND MONITORING**



**ZERO DOWNTIME
MIGRATIONS**



AGENTLESS CDC

REAL-TIME STREAMING

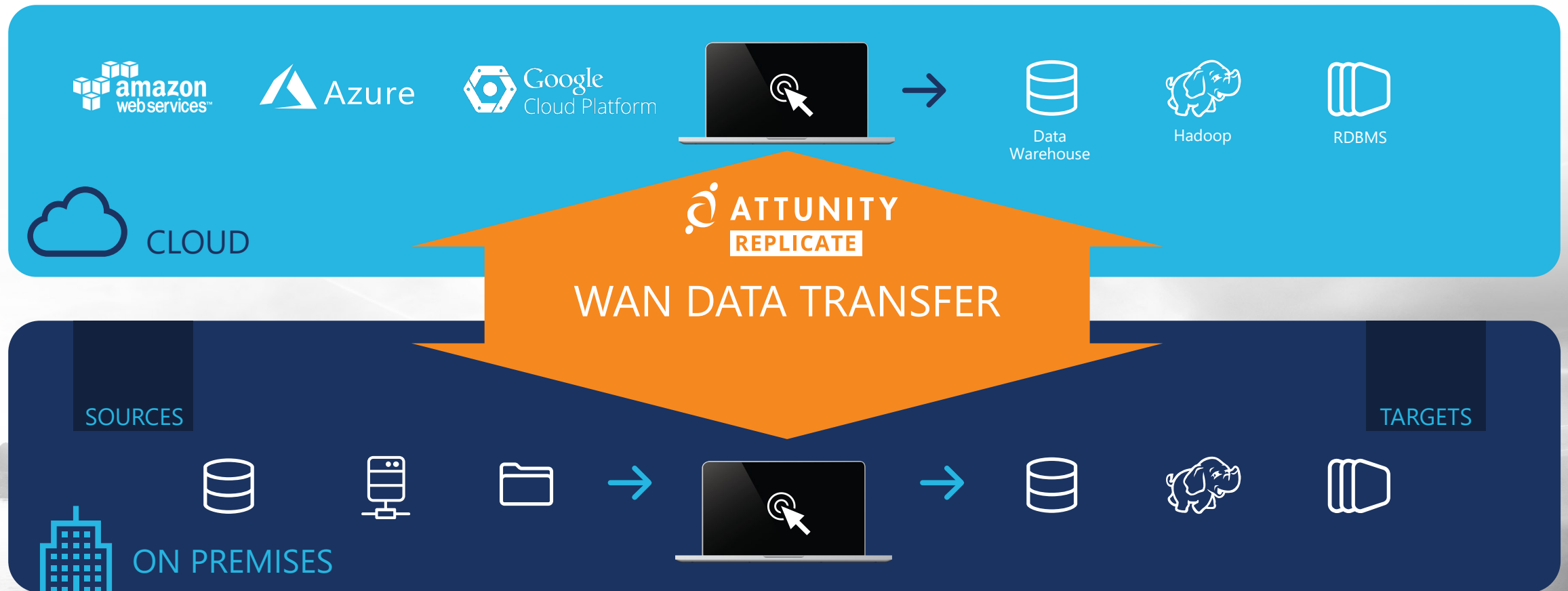
CLOUD DATAOPS WITH ATTUNITY

1. AGILE CLOUD MIGRATION

COMPRESSION

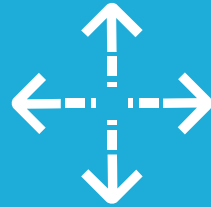
MULTI-PATHING

ENCRYPTION

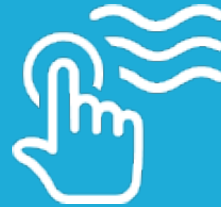


2. REAL-TIME DATA FOR ANALYTICS

LOW-IMPACT CHANGE DATA CAPTURE



**RAPID DEPLOYMENT
WITH NO AGENTS
ON SOURCES**



**100% AUTOMATED
SETUP, EXECUTION
AND MONITORING**



**SECURE MULTI-
STREAMING TO
CLOUD TARGETS**



AGENTLESS CDC

REAL-TIME DATA STREAMS

3. DATA LAKE AUTOMATION

STREAMING DATA LAKE PIPELINE AUTOMATION FROM INGEST TO ANALYTICS



**For data architects
and engineers**



**Rapidly deliver real-
time and analytics-
ready data**

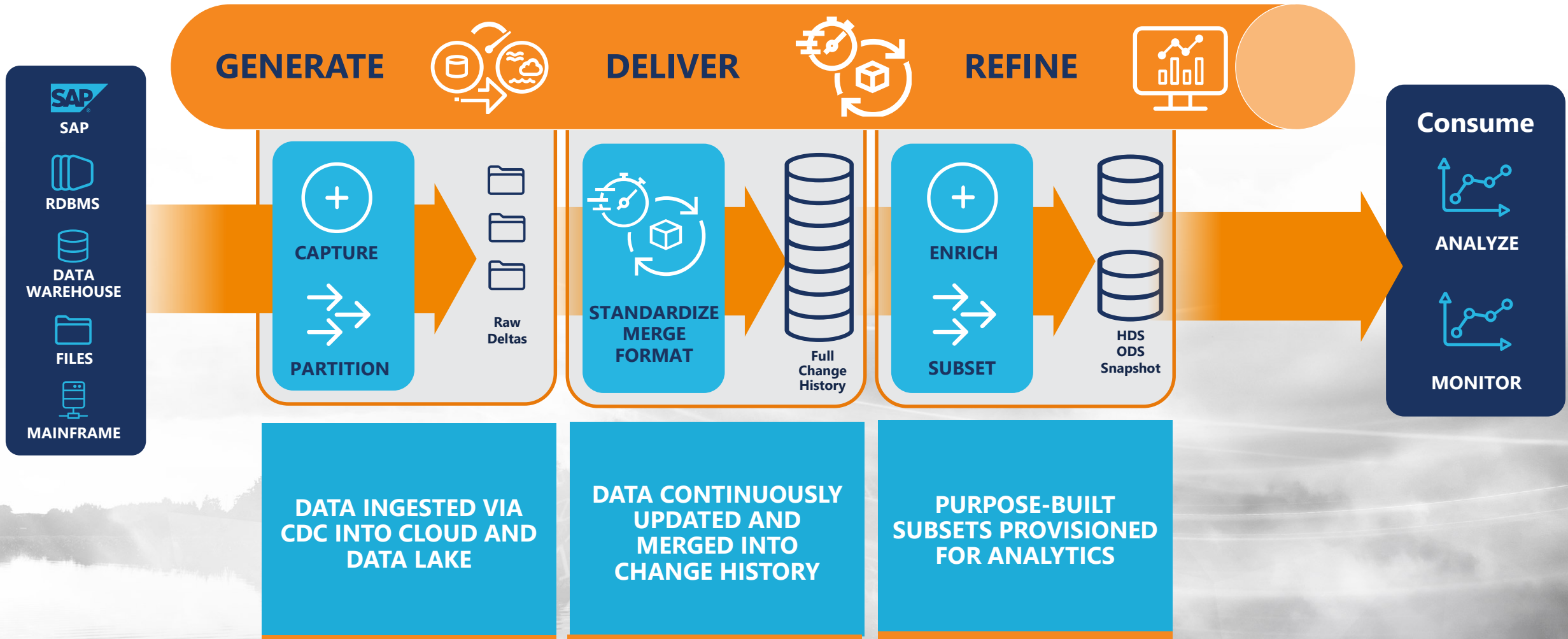


**Remove the time,
cost and risk of
manual coding**



**Adaptable to new
sources, targets,
platforms,
technologies**

3. DATA LAKE AUTOMATION



CLOUD DATAOPS WITH ATTUNITY

4. DATA WAREHOUSE AUTOMATION

AUTOMATED WORKFLOW

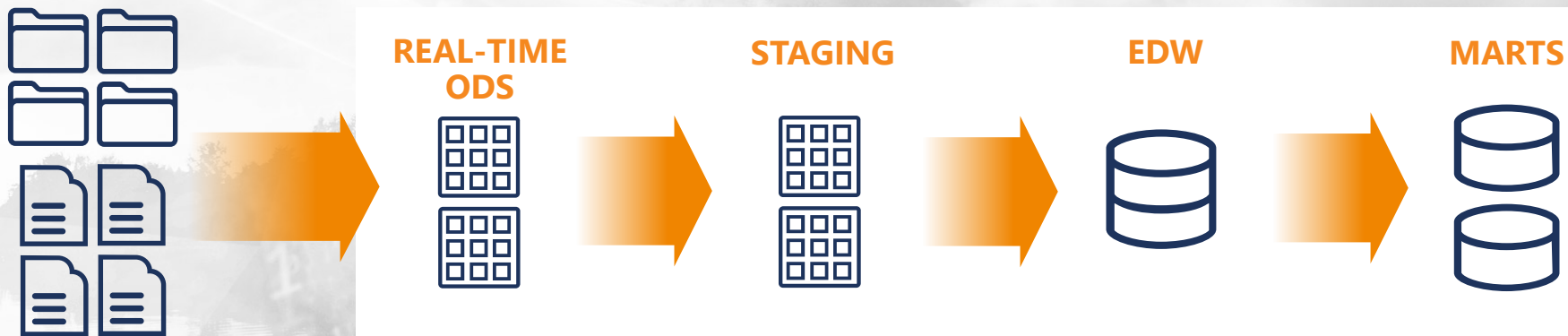
Real-Time
Extraction

Auto Design with
Best Practices

Auto Extraction,
Loading,
Mapping

Auto Generated
Transformations

Change
Propagation



"DWA will accomplish an initial BI implementation up to five times faster than traditional methods"*

*TDWI Data Warehouse Automation Course

CLOUD DATAOPS WITH ATTUNITY

4. AGILE DATA WAREHOUSE DEVELOPMENT



STREAMLINE CREATION OF CUSTOM MODELS, ETL CODE, ETC.
EASILY GENERATE SOFTWARE DEPLOYMENT PACKAGES
IMPROVE TEAM PRODUCTIVITY AND AGILITY



CONTROL AND RECONCILE MODEL VERSIONS
ROLL BACK, COMPARE, MERGE, LOCK VERSIONS

CLOUD DATAOPS WITH ATTUNITY

5. METADATA AND CONTROL

ENTERPRISE DASHBOARD VIEWS

OPERATIONS

ANALYTICS

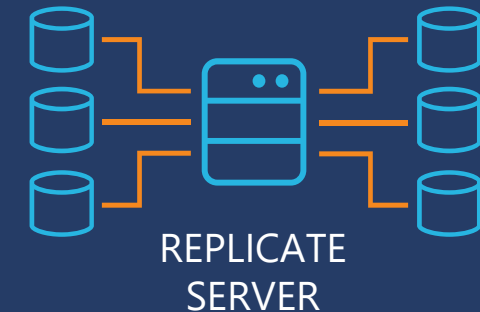
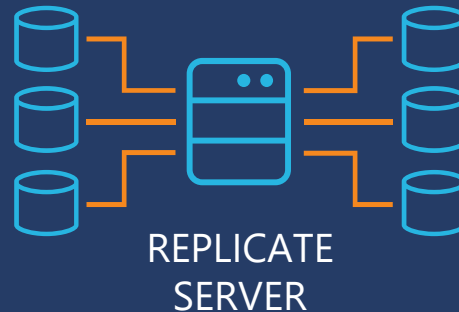
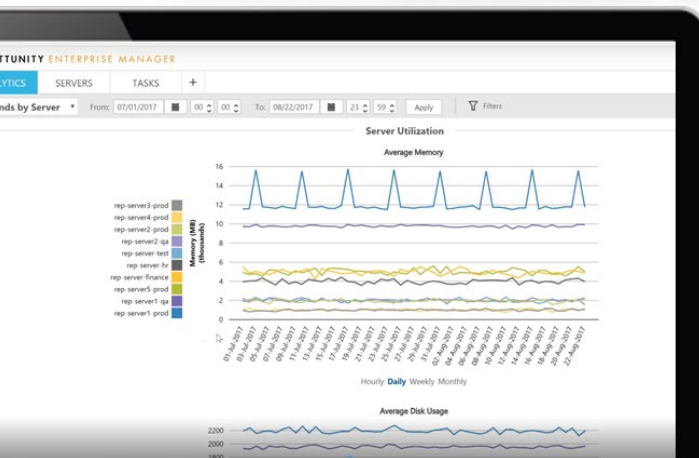
Control tasks and monitor data flow across distributed environments

Multiple data centers
On premises and cloud

Trace data lineage for compliance
Historical and real-time reporting

Visualize, analyze, improve operations

Capacity planning
Activity and KPI trends



MULTI CLOUD CASE STUDIES



MAJOR FINSERV FIRM

- Data modernization initiative with specialized cloud platforms
- Google for Machine Learning, AWS for Infrastructure, Azure for CRM
- Leverages automated Attunity data pipeline



TRAVEL SERVICES PROVIDER

- Specialized platforms for distinct corporate objectives
- AWS – cost, infrastructure, performance, localization
- Azure – AI, advanced analytics, new services, microservices
- Attunity provides single data integration hub



FORTUNE 100 FOOD CO.

- Redirecting data from one CSP to another based on partner's competitive requirements
- AWS – DevTest, read-only DBs, archiving
- Google – BI and analytics
- Attunity provides single data integration hub

Thank You

LEARN MORE AT www.Attunity.com

SEE MY ARTICLES AT <https://www.eckerson.com/blogs/decoding-data-software>

ATTUNITY – MODERNIZE AND AUTOMATE DATA INTEGRATION

