

HOW TO MAKE CLOUD DATA WAREHOUSING COMPREHENSIVE

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Outline

It's important for companies to understand their modernization strategy will deliver increased business value *only* through an optimized cloud ecosystem.



Business Strategy and Analytics

Align to business goals and initiatives to drive prioritization in delivering analytics capabilities

Roadmap for the Cloud

01

02

03

Set strategies for people, process, and technologies to achieve target state reference architectures

Modernizing DW on the Cloud

Modernizing the DW should combine DW and self-service strategies



01

3 best practices to ensure alignment of data with business needs

BUSINESS STRATEGY AND ANALYTICS

Business Strategy and Analytics

ENSURE BUSINESS ALIGNMENT



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Business Strategy and Analytics

BUSINESS NEEDS AFTER 2020

Overcoming:





Resilient

Empowered Distributed



Business Strategy and Analytics

TRANSLATING 2020 INTO ARCHITECTURE





Radiant Advisors Modern Analytics Lifecycle (r2021.1)





Radiant Advisors Enterprise Analytics Capabilities Framework (r2021.1) DELIVER ANALYTIC CAPABILITIES TO THE BUSINESS







Have a comprehensive modern data architecture to prioritize

ROADMAP FOR THE CLOUD

02

Roadmap for the Cloud

STRATEGIES FOR PEOPLE-PROCESS-TECHNOLOGY

Data Architecture

- Data Lake
- Data Hubs
- Data Labs/Sandboxes
- Data Marketplace

Data Integration

- Streaming Data Hub
- Database Replication
- Data Pipeline Platform
- Orchestration ETL/ELT

Cloud Native Architecture

- Micro-services
- Containers
- CI/CD
- Serverless

Data Technologies

- RDBMS MPP/Columnar
- Object Stores
- In-Memory Databases
- Graph Databases

Data Management

- DataOps
- Data Governance
- Data Quality
- Compliance/Audit

Data Science Platforms

- Spark platforms
- R and Python
- ML/DL Libraries
- ML Ops/Model Ops



Radiant Advisors Modern Data Infrastructure Framework (r2021.1)

EXAMPLE OF 2021 TEMPLATE





HAVE A CLOUD DW MIGRATION STRATEGY

Account for time to learn and gain the experience needed to work in the cloud.





HAVE A CLOUD-NATIVE STRATEGY

Do things in a way that benefit from the cloud rather than simply run on the cloud.

Cloud-native benefits:

- 1. Agile iterations improve quality
- 2. Increased operating efficiency and cost
- 3. Built for scale in development and resources
- 4. Flexibility among development team strengths

Start with the goal to deploy faster

- Infrastructure as code
- Automation
- Continuous Integration/Continuous Deployment

Mature with scalability & flexibility

- Micro-services
- Serverless functions
- Deploy and manage with containers



Roadmap for the Cloud

ORGANIZE THE LOGICAL ARCHITECTURE





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Roadmap for the Cloud

DATA INFRASTRUCTURE ON AWS



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Vendors listed as examples and not endorsements



Example Physical Implementation of Modern Data Platform with AWS, Snowflake, and Alteryx



https://radiantadvisors.com/our-research/accelerating-analytics-with-alteryx-and-snowflake

Roadmap for the Cloud

DATA INFRASTRUCTURE ON AZURE



Roadmap for the Cloud

GOOGLE CLOUD DATAFLOW



https://cloud.google.com/dataflow



A comprehensive approach to modernizing the DW

MODERNIZING DW ON THE CLOUD

MODERNIZE DW/BI PLATFORM INITIATIVE



ENABLE SELF-SERVICE INITIATIVE







PHASE 1: DATA INGESTION





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Example technologies on AWS for illustration purposes

PHASE 2: DATA PIPELINES AND DATA MODELS





Example technologies on AWS for illustration purposes

How to make Cloud Data Warehousing Comprehensive

3 BEST PRACTICES RECOMMENDATIONS

Data Strategy and Vision

- 1. Align to business outcomes
- 2. Deliver analytics capabilities
- 3. Balance shared and distributed needs

Roadmap for the Cloud

- 1. Re-host, Re-platform, Rearchitect
- 2. Have a cloud-native strategy
- 3. Set logical and physical reference architectures

Modernizing DW on the Cloud

- 1. Start with data ingestion
- 2. Convert to data pipelines and cloud databases
- 3. Accelerate Agile DW teams with self-service



We advise data and analytics leaders how to modernize their data and analytics architecture and teams on the cloud with our independent research, education, and tools.

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THANK YOU

