May 11, 2022

Utility Analytics Summit

Andy Quick
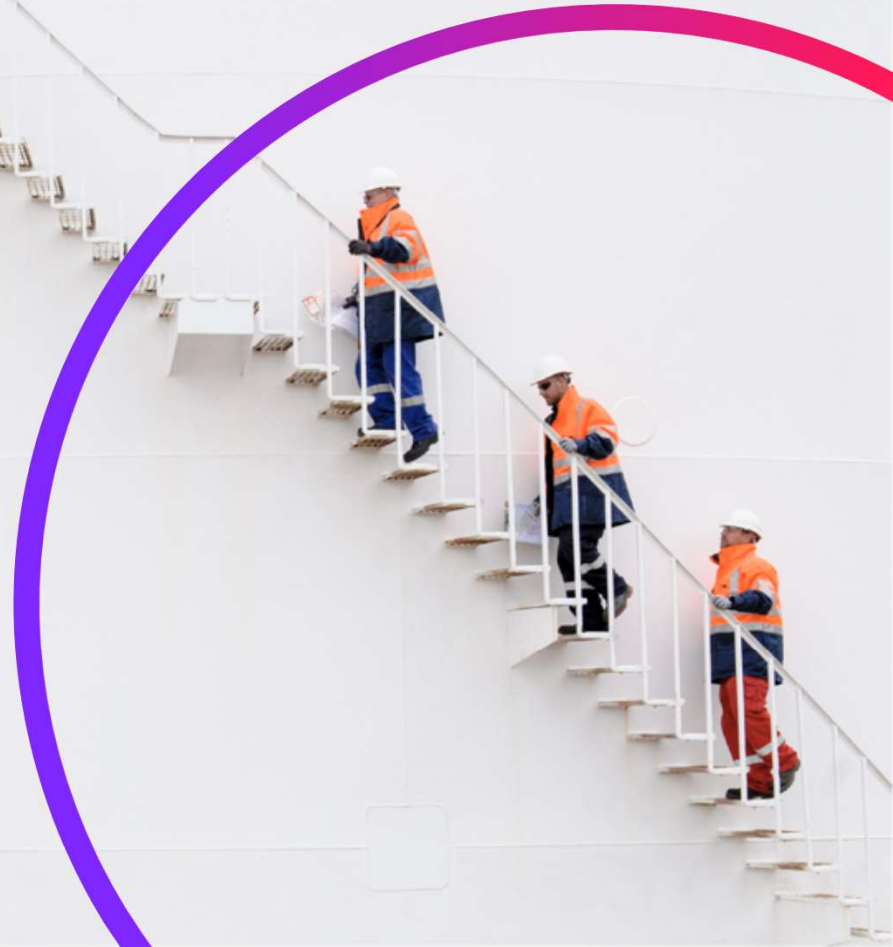
Questions

Who are you?

How is analytics **positioned** w/ executives?

What does the analytics team do?

How do you **identify & prioritize** work?

What **methodology** do you follow?

How are you **organized**?

How do you **find and retain talent**?

How do you **create value**?

Advice for analytics leaders?

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Moneyball for Utilities

Jonah

- ✓ Knows baseball
- ✓ Uses analytics
- ✓ Provides insights
- ✓ Makes recommendations
- ✓ Sticks with it

Brad

- ✓ Knows baseball
- ✓ Trusts analytics
- ✓ Provides insights
- ✓ Takes action
- ✓ Sticks with it

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Help leaders win by enabling them to make decisions today using predictions about the future

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What we do

Create and Maintain Analytics Products

Our **analytics products** combine software, data, and other digital tools that provide insights and recommendations to decision makers using a variety of analytics techniques.

data → analysis → insight → action → result

Analytics Product
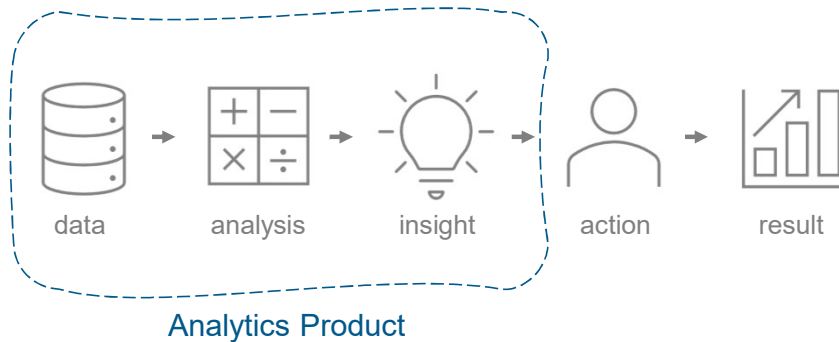
Provide Enterprise Data Services

Our **data service** allows people to store and retrieve enterprise data and information, leveraging a centralized platform governed by standards, structure, and security controls.

add → controls → enterprise data
use ← tools ←

Data Service

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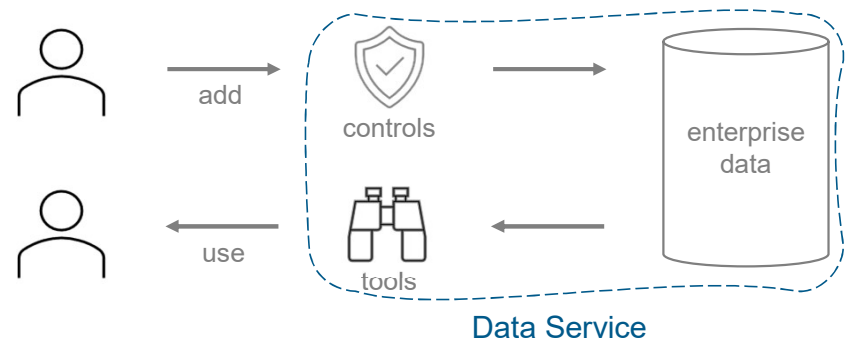
Product pipeline

We **interviewed** leaders…   …yielding **122 ideas**…   …classified by **value/effort**…   …grouped into **4 teams.**

Let's discuss **your problems** that we might help remedy using analytics…

x 85

35	Customer
23	Distribution
11	Innovation
6	Enterprise Planning
6	Safety
5	Transmission
5	Finance
5	Nuclear
26	Other

55 Customer

30 Power Delivery

21 Generation

16 Corporate

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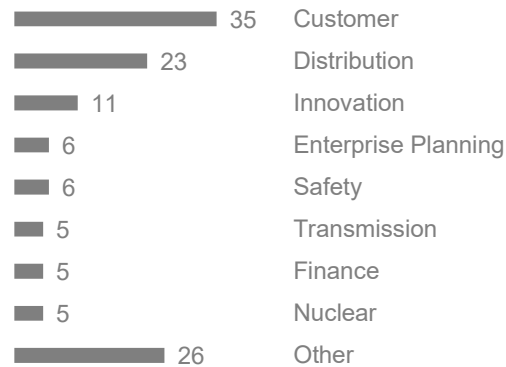
Product delivery methodology

Product Planning

- Engage Business Leaders
- Develop Analytics Ideas
- Prioritize Analytics Ideas
- Conduct Feasibility Assessment
- Launch Analytics Product Teams

Product Development

- Discovery
- Design
- Build & Test
- Measure
- Adoption
- Operationalize
- Exit

Product Operations

- Monitor Product Performance
- Identify Defects and Enhancements
- Prioritize Defects and Enhancements
- Correct Defects
- Build and Test Enhancements

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We work in product teams ("pods")

Dedicated, full-time   **Matrixed from business**

- Provide overall leadership for product delivery
- Ensure business results are achieved
- Prioritize features in backlog
- Resolve major blockers

| Business Analytics Manager |

- Shared role, mirrored to Analytics Manager
- Sign-off on results
- Accepts product
- Champion of product adoption for the business
- Resolve major blockers

| Business Sponsor |

- Lead day-to-day product delivery
- Remove day-to-day blockers
- Provide agile coaching
- Plan and execute sprints
- Manage schedule & budget
- Facilitate product ceremonies
- Create and maintain product plan and roadmap
- Coordinate product testing

| Product Manager |

- Provide process knowledge
- Test & validate analytics product features
- Provide access to systems and data
- Help analyze current process for frictions
- Champion of product adoption for the business

| Business Experts |

- Determine analytics approach
- Design analytics models
- Build analytics models
- Test analytics model
- Enrich models with data & rules to improve accuracy

| Data Scientist |

- Design user experience
- Create journey maps and wireframes
- Facilitate UX testing

| Product Designer |

- Identify data needs
- Acquire, stage, clear, and prepare data
- Design and create software to move data to environments
- Ensure easy access is available for team members

| Data Engineer |

- Develops software based on design
- Integrates product with existing systems
- Supports product testing

| Software Engineer |

- Identify analytics platform requirements
- Identify platform tool requirements for products
- Identify and implement new technology tools
- Facilitate platform changes as required
- Design product technical architecture
- Review designs and code developed by team members

| Solution Architect |

- Facilitate process mapping
- Design process changes
- Create and maintain stakeholder analyses
- Manage stakeholder expectations
- Facilitate communication and training
- Lead intervention tactics to ensure product adoption
- Setup adoption expectations/criteria/thresholds

| Change Management Analyst |

Straddle multiple pods

- Conduct design thinking sessions and workshops
- Coordinate creation of product features, business rules, data sources, formulas)
- Develop user stories and epics

| Business Analyst |

- Develops test approach and plan
- Executes test scenarios
- Prepares test data
- Manages defects

| Tester |

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4 concurrent pods

Customer

Analytics Manager	Business Sponsor
Product Manager	

Business Experts	Data Scientist	Data Engineer

Power Delivery

Analytics Manager	Business Sponsor
Product Manager	

Business Experts	Data Scientist	Data Engineer

Generation

Analytics Manager	Business Sponsor
Product Manager	

Business Experts	Data Scientist	Data Engineer

Corporate

Analytics Manager	Business Sponsor
Product Manager	

Business Experts	Data Scientist	Data Engineer

Cross-Pod Roles

Product Designer	Solution Architect	Change Management Analyst	Software Engineer	Business Analyst	Tester

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6 existing products, 8 under development

Customer

- Meter tampering
- Bill estimator
- High bill predictor
- o Net Promoter Score (NPS) prediction

Power Delivery

- Workforce performance & productivity diagnostics
- o Vegetation Mgmt. – Trim cycle miles/ cost predictor
- o Meter status & connectivity analyzer
- o Transformer failure diagnostics

Generation

- o Short term load/ location marginal pricing forecasting model
- o MISO fuel purchasing optimization

Corporate

- Supply chain 360
- Unbilled revenue estimator
- o Cloud security monitoring
- o Revenue forecasting

O Underway

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Organized around what we do

Business	Product	Operations	Platform

Business
- Relationship management
- Pipeline management
- Planning and prioritization
- Product ownership
- Change management

Product
- Product management
- Produce design
- Product engineering
- Data staging & preparation
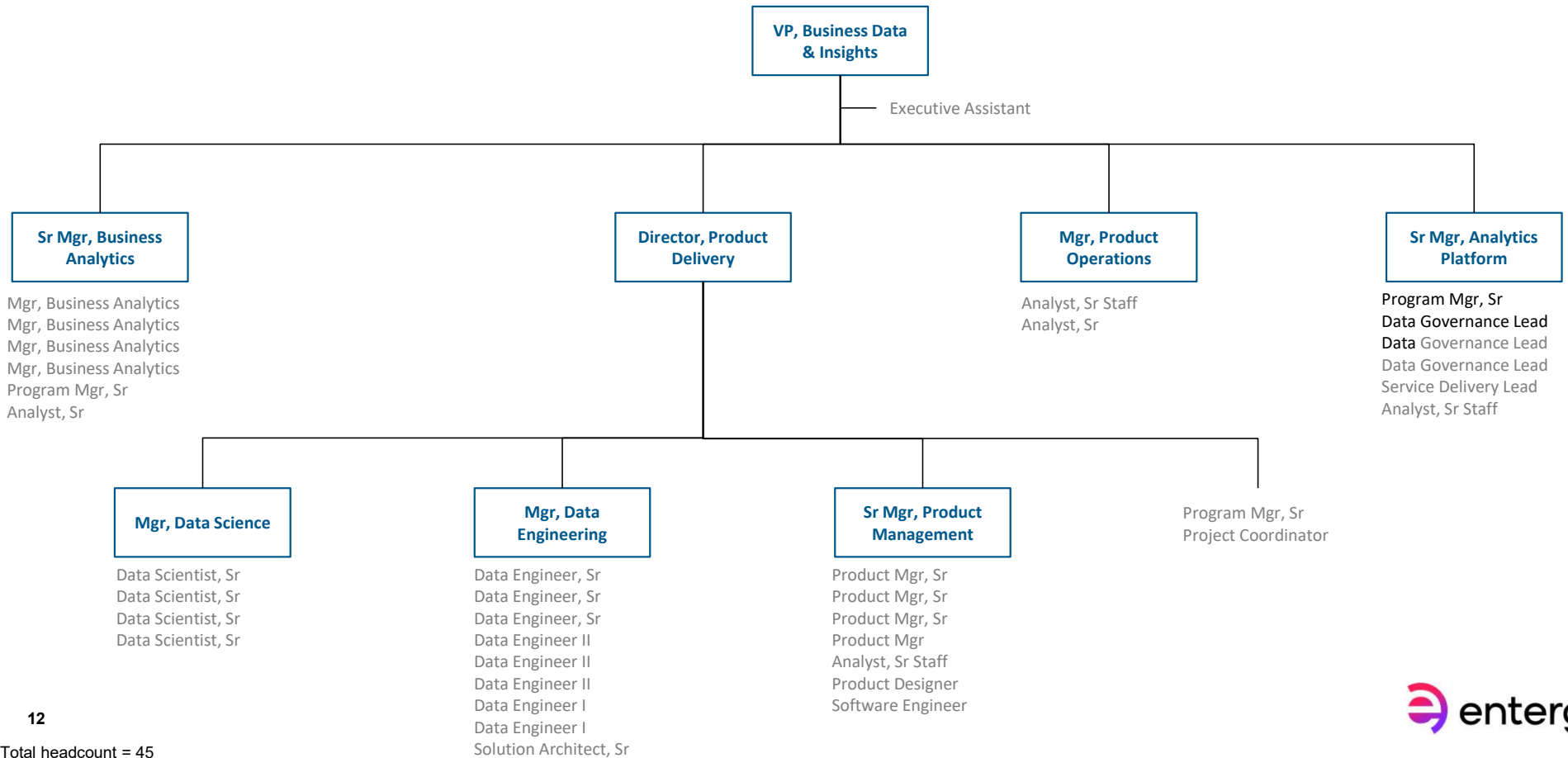- Data analytics

Operations
- Monitoring
- Defect correction
- Maintenance
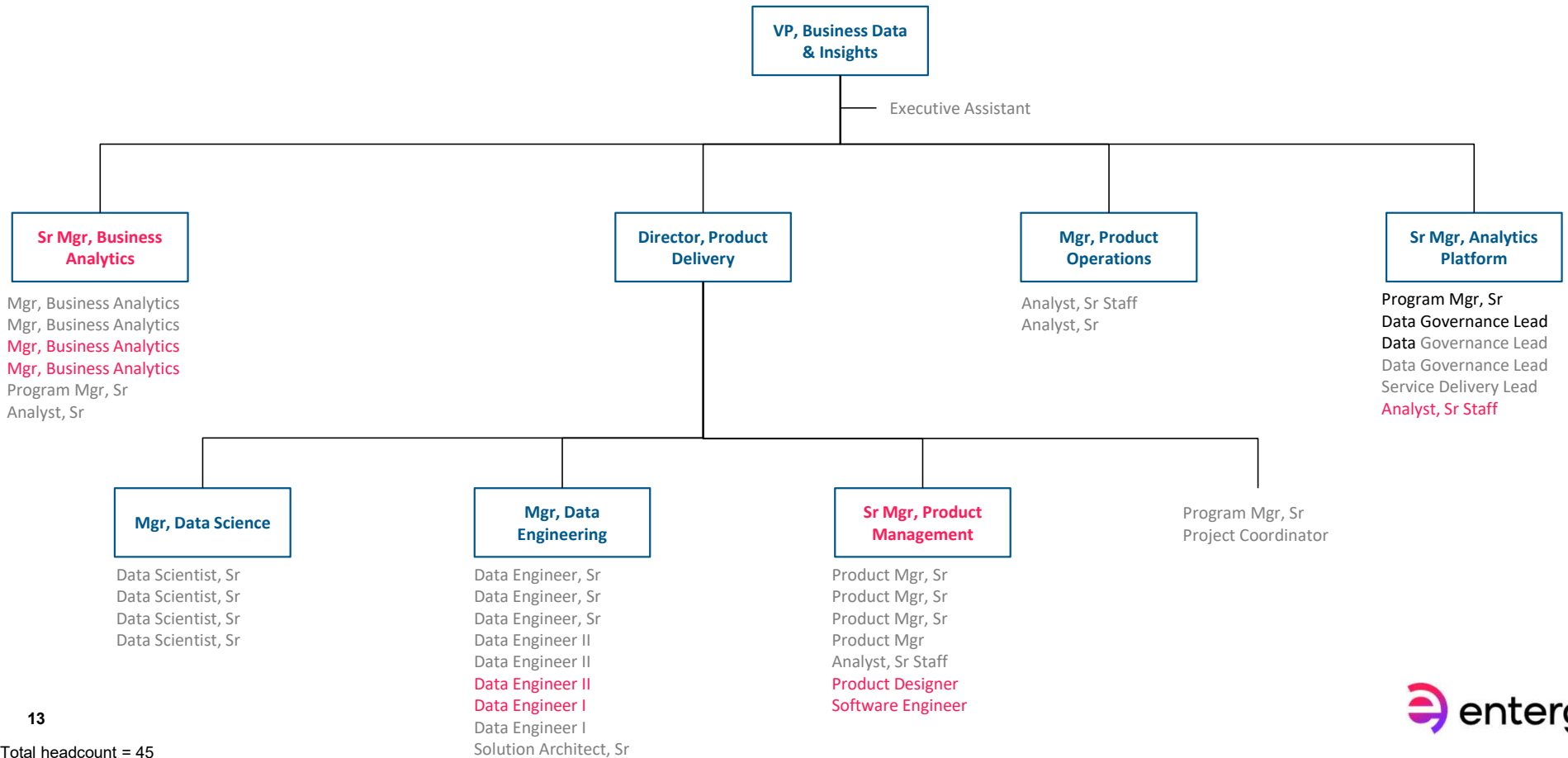- Enhancements
- Performance management

Platform
- Strategy & Roadmap
- Data standards
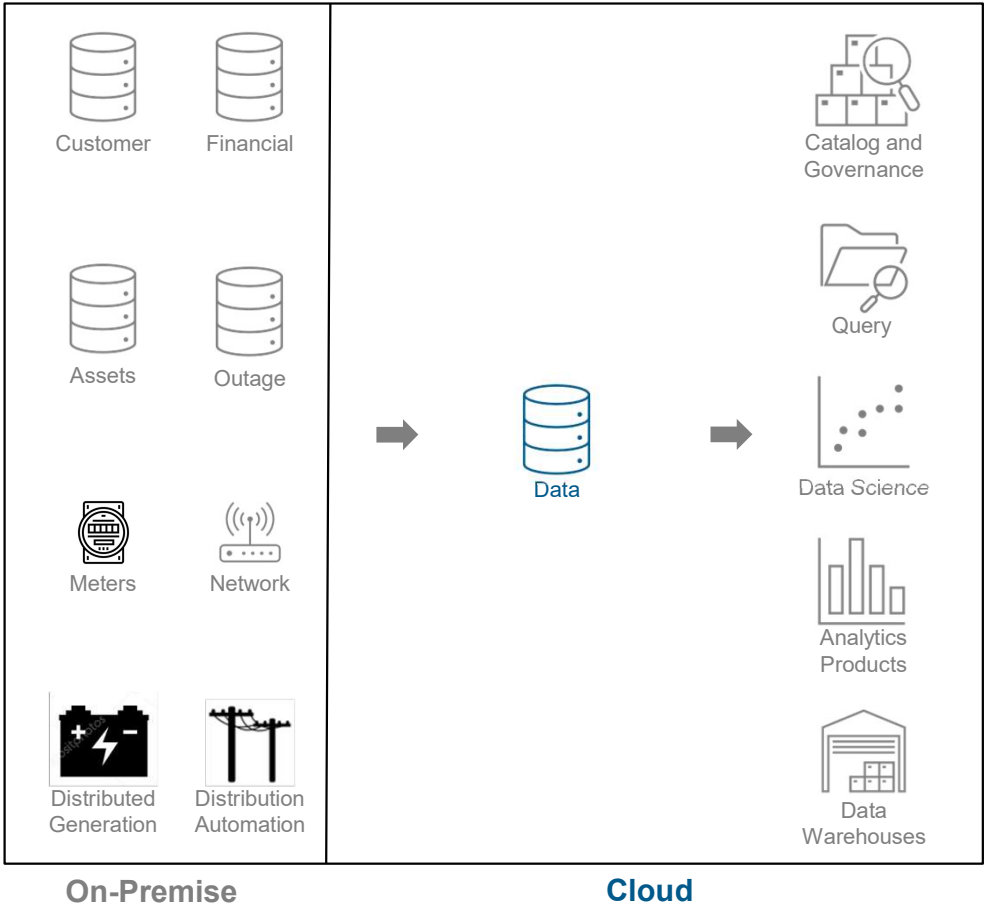- Data governance
- Data architecture
- Data access services

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Detailed org chart

VP, Business Data & Insights

Executive Assistant

Sr Mgr, Business Analytics

Mgr, Business Analytics
Mgr, Business Analytics
Mgr, Business Analytics
Mgr, Business Analytics
Program Mgr, Sr
Analyst, Sr

Director, Product Delivery

Mgr, Product Operations

Analyst, Sr Staff
Analyst, Sr

Sr Mgr, Analytics Platform

Program Mgr, Sr
Data Governance Lead
Data Governance Lead
Data Governance Lead
Service Delivery Lead
Analyst, Sr Staff

Mgr, Data Science

Data Scientist, Sr
Data Scientist, Sr
Data Scientist, Sr
Data Scientist, Sr

Mgr, Data Engineering

Data Engineer, Sr
Data Engineer, Sr
Data Engineer, Sr
Data Engineer II
Data Engineer II
Data Engineer II
Data Engineer I
Data Engineer I
Solution Architect, Sr

Sr Mgr, Product Management

Product Mgr, Sr
Product Mgr, Sr
Product Mgr, Sr
Product Mgr
Analyst, Sr Staff
Product Designer
Software Engineer

Program Mgr, Sr
Project Coordinator

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12

Total headcount = 45

Detailed org chart

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Program Mgr, Sr
Analyst, Sr

Director, Product Delivery

Mgr, Product Operations

Analyst, Sr Staff
Analyst, Sr

Sr Mgr, Analytics Platform

Program Mgr, Sr
Data Governance Lead
Data Governance Lead
Data Governance Lead
Service Delivery Lead
Analyst, Sr Staff

Mgr, Data Science

Data Scientist, Sr
Data Scientist, Sr
Data Scientist, Sr
Data Scientist, Sr

Mgr, Data Engineering

Data Engineer, Sr
Data Engineer, Sr
Data Engineer, Sr
Data Engineer II
Data Engineer II
Data Engineer II
Data Engineer I
Data Engineer I
Solution Architect, Sr

Sr Mgr, Product Management

Product Mgr, Sr
Product Mgr, Sr
Product Mgr, Sr
Product Mgr
Analyst, Sr Staff
Product Designer
Software Engineer

Program Mgr, Sr
Project Coordinator

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Total headcount = 45

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We're moving to the cloud... (one day)

On-Premise: Customer, Financial, Assets, Outage, Meters, Network, Distributed Generation, Distribution Automation → Data → Cloud: Catalog and Governance, Query, Data Science, Analytics Products, Data Warehouses

Don't bother competing for talent…

VS.

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Find another way…

Job hoppers are gonna hop

Climbers are gonna climb

Partner with universities

Hire locals who want to stay locals

Grow your own

Make work the happiest place on earth

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Advice

☑ Care about what your CEO cares about

☑ Think singles and doubles

☑ Focus on business-centric results

☑ Make products people love

☑ Talk like the business

☑ Make your platform easy to use

☑ Add data by following problems

☑ Establish processes for everything you do

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