Cloud as enabler for Digital Transformation in CGDs

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Focus areas for a CGD utility

Maintain network availability and safety levels

Real-time monitoring of gas distribution network parameters, critical asset monitoring and leakage detection

Increase operational efficiency

Integrated processes, performance monitoring, analytics will help drive operational efficiency

Increase consumer base

Consumer experience factor drives consumer satisfaction

Cost Optimization

Identify areas of improvement to optimize costs (demand planning, IT resource management etc.)

Digital Transformation enables flexibility and greater focus on core Utility objectives

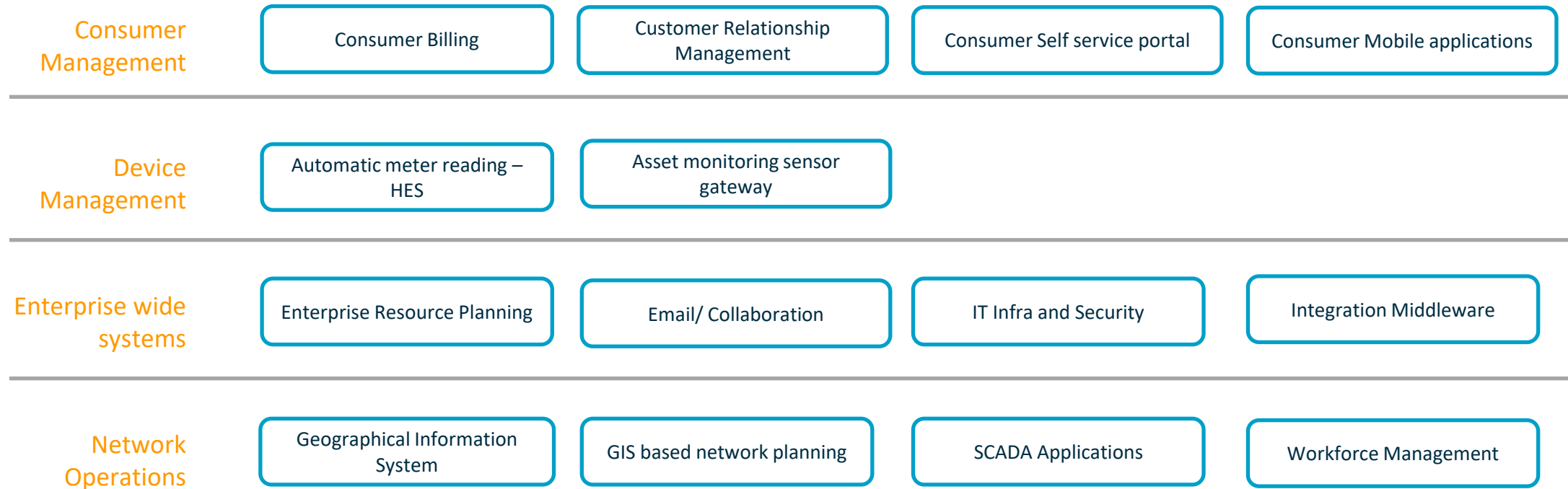Reliability

Safety and security

Agility and time to market

Customer satisfaction

Revenue and costs

Systems landscape in a CGD utility

Consumer Management
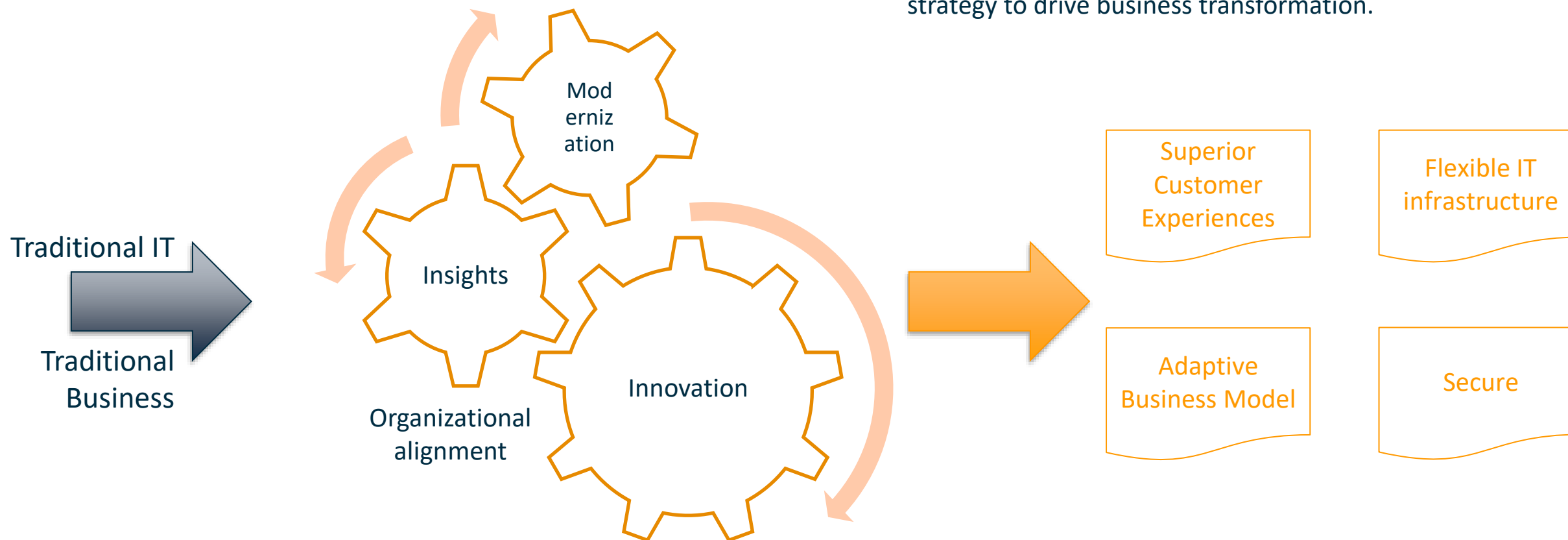
| Consumer Billing | Customer Relationship Management | Consumer Self service portal | Consumer Mobile applications |

Device Management

| Automatic meter reading – HES | Asset monitoring sensor gateway |

Enterprise wide systems

| Enterprise Resource Planning | Email/ Collaboration | IT Infra and Security | Integration Middleware |

Network Operations

| Geographical Information System | GIS based network planning | SCADA Applications | Workforce Management |

SCADA & IOT sensors

Smart meters

Domestic, Industrial and commercial consumers

Areas for cloud adoption in CGD

Modern engagement proactively crosses over multiple channels **capturing more consumer data**, and **giving consumers more of what** they want, via the channels they prefer.

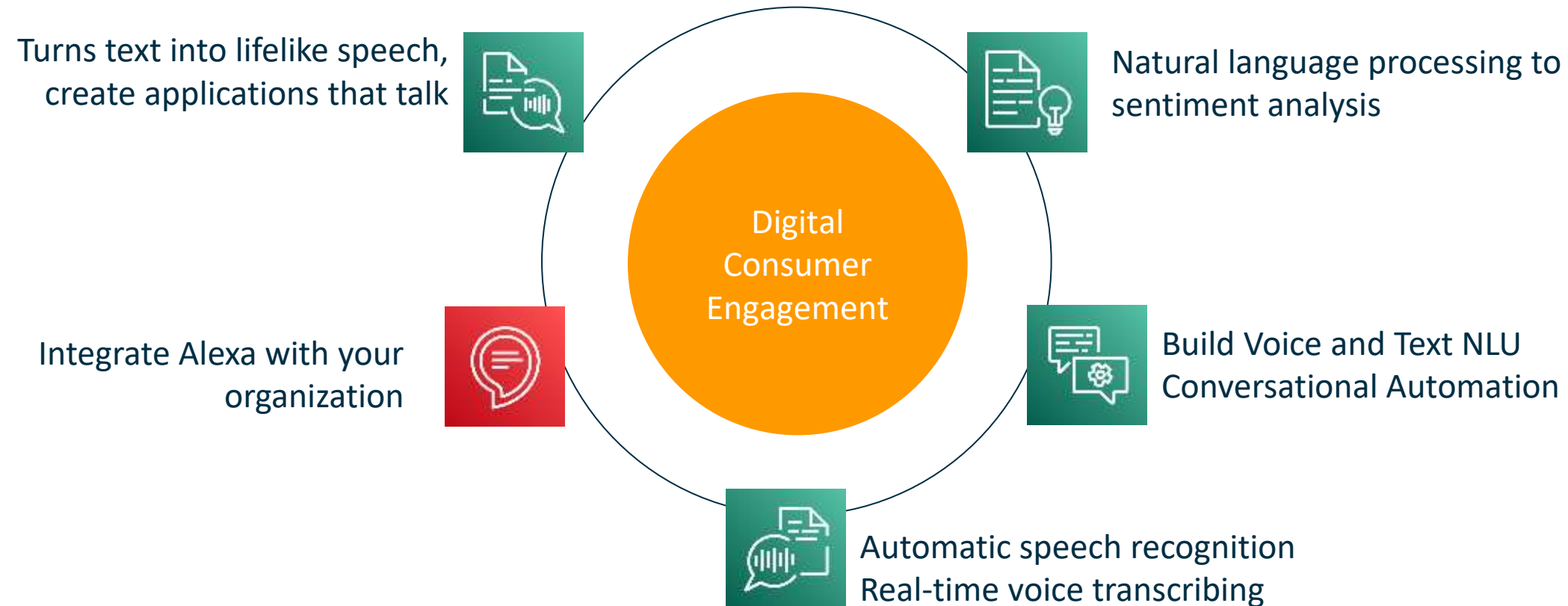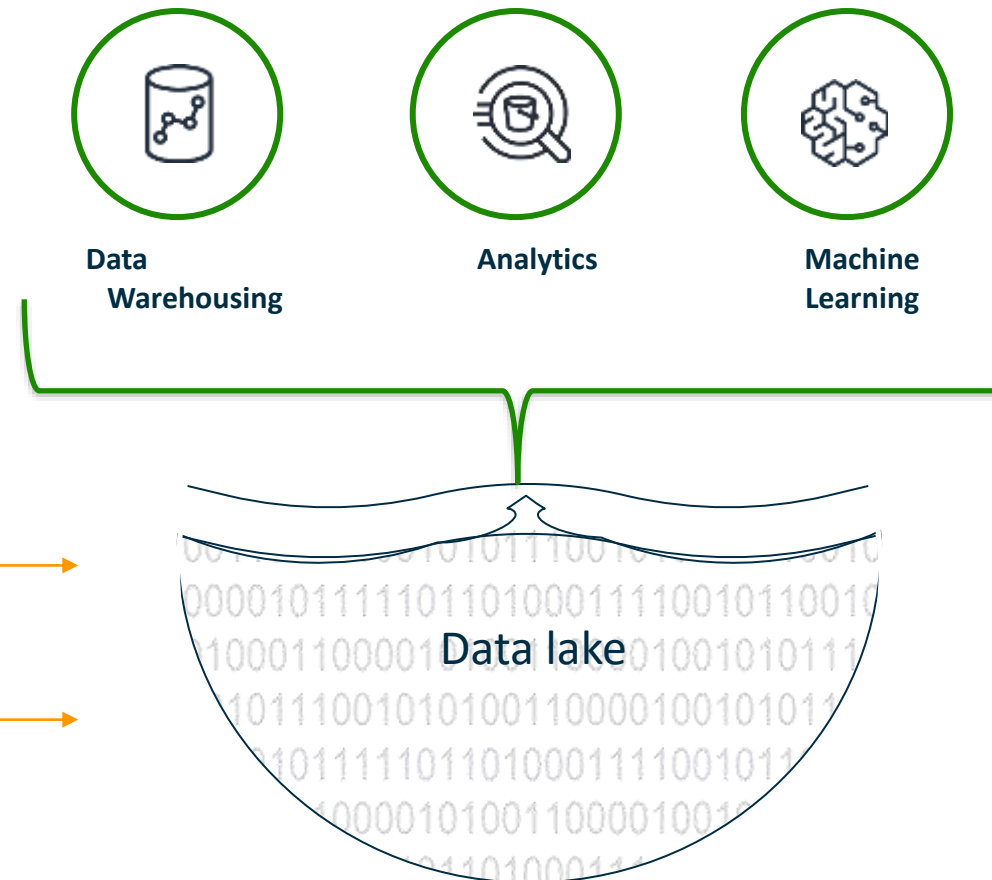|					
Contact center customer service	Web portals and mobile apps	Chatbots, voice commands, Alexa Skills	Email, text alerts, push notifications	Connected home programs	Smart devices

Digital consumer engagement

Areas for cloud adoption in CGD

Turns text into lifelike speech, create applications that talk

Natural language processing to sentiment analysis

Integrate Alexa with your organization

Digital Consumer Engagement

Build Voice and Text NLU Conversational Automation

Automatic speech recognition Real-time voice transcribing

Areas for cloud adoption in CGD

CGD applications

- Consumer Billing & Customer care
- Automatic meter reading
- Asset monitoring and management
- Geographical Information System
- SCADA Applications
- Workforce Management

Data Warehousing

Analytics

Machine Learning

Data lake
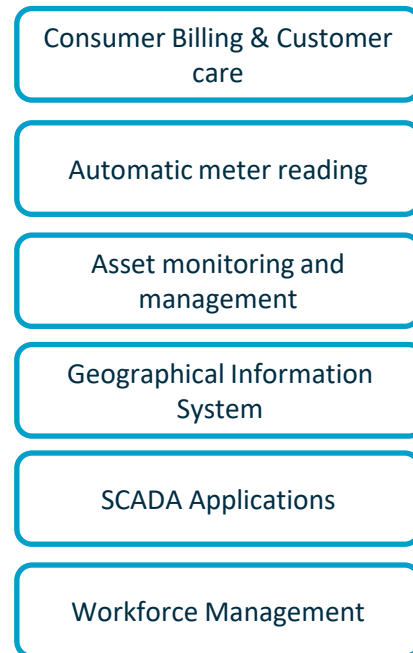
A single storage layer for all analytics and ML

Build analytics for varied use cases

Organizational KPIs: Billing, Revenue, Average revenue realization, average cost to serve etc.
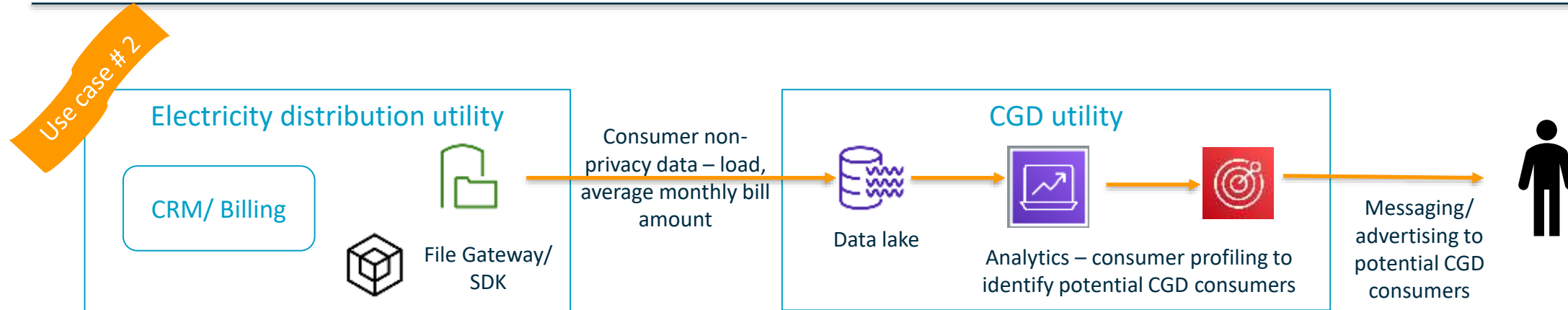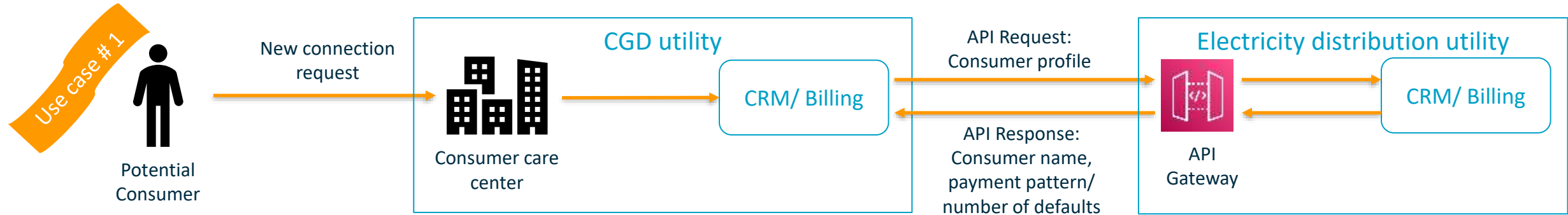
Usage analysis and patterns at consumer level and GA level

Predictions: demand/ usage forecast, revenue prediction

Asset condition analysis using computer vision

Fraud detection using anomaly detection in usage patterns

Cross leverage between electricity and CGD

Use case # 1

Potential Consumer → New connection request → CGD utility: Consumer care center → CRM/ Billing

API Request: Consumer profile → Electricity distribution utility: API Gateway → CRM/ Billing

API Response: Consumer name, payment pattern/ number of defaults

Use case # 2

Electricity distribution utility: CRM/ Billing, File Gateway/ SDK → Consumer non-privacy data – load, average monthly bill amount → CGD utility: Data lake → Analytics – consumer profiling to identify potential CGD consumers → Messaging/ advertising to potential CGD consumers

Thank You

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