City Gas Distribution Network for 70% of India's Population By 2030

Speaker : *Mandar Patil*

Senior Manager – Solution Architecture

Amazon Internet Service Pvt Ltd

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

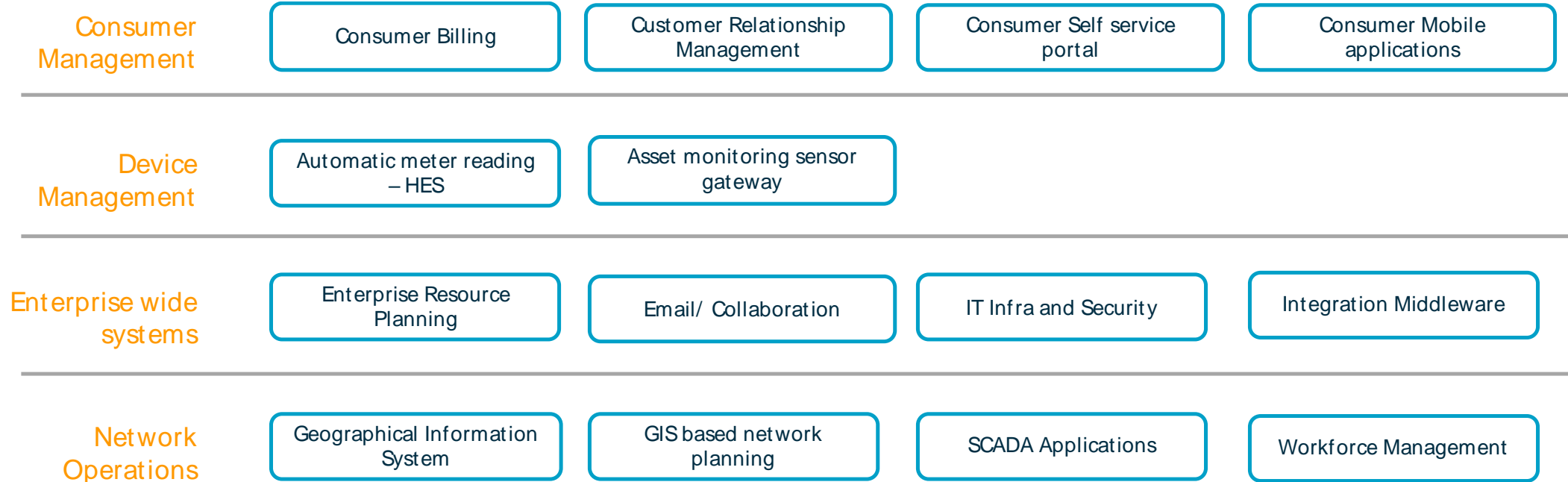Reliability

Safety and security

Agility and time to market

Customer satisfaction

Revenue and costs

India
SMART UTILITY
Week 2022
02 - 04 March 2022
Digital Platform

ISGF
India Smart Grid Forum

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

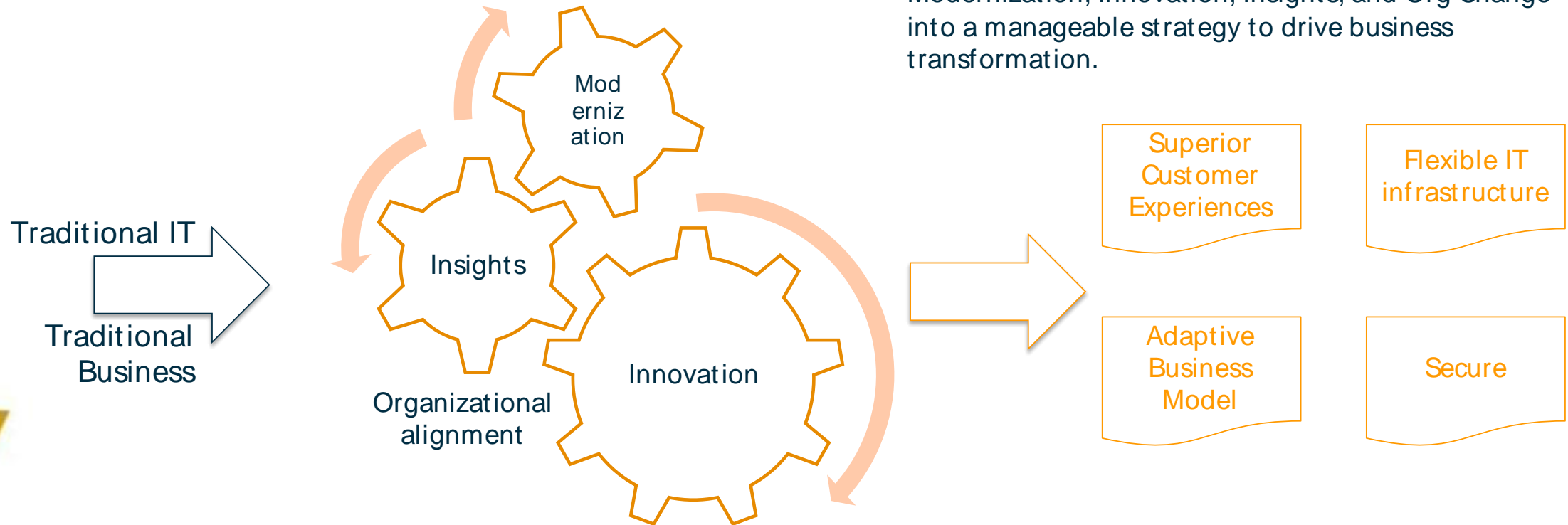| Geographical Information System | GIS based network planning | SCADA Applications | Workforce Management |

SCADA & IOT sensors

Smart meters

Domestic, Industrial and commercial consumers

Transformation towards digital businesses

- Bring technology and business closer together

- Combine and align business priorities with Modernization, Innovation, Insights, and Org Change into a manageable strategy to drive business transformation.

Traditional IT

Traditional Business

Modernization

Insights

Organizational alignment

Innovation

Superior Customer Experiences

Flexible IT infrastructure

Adaptive Business Model

Secure

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

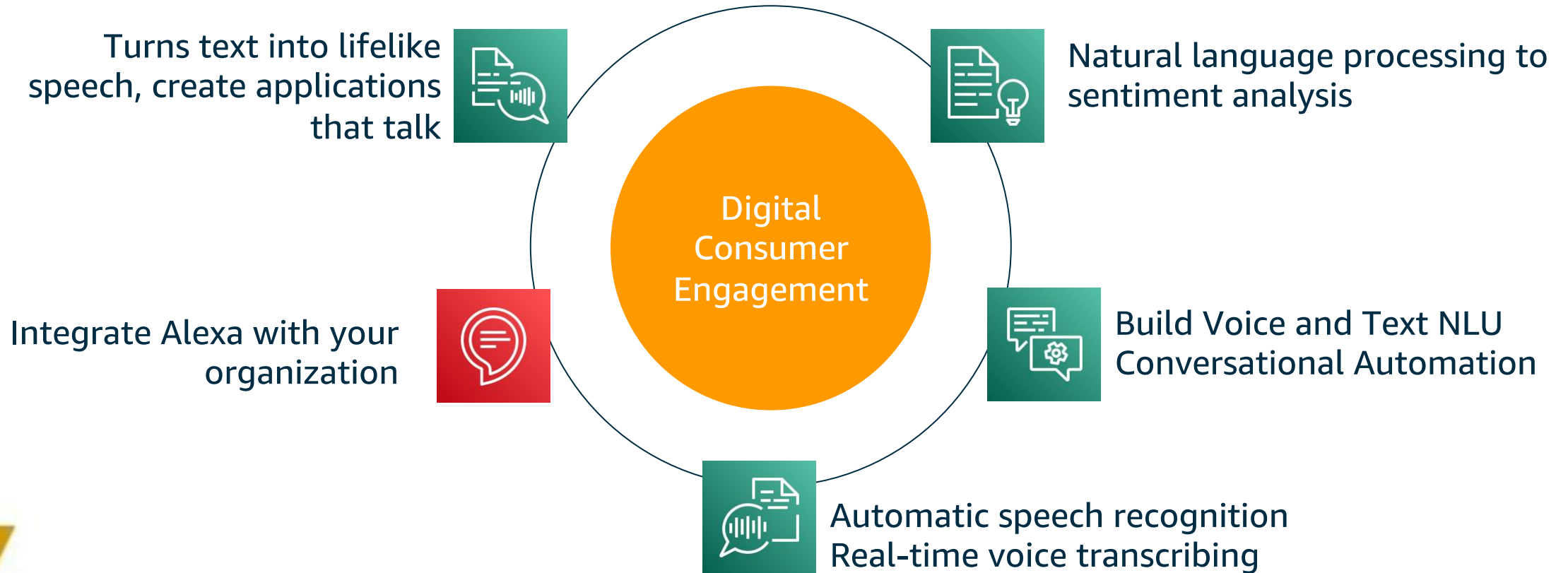Email, text alerts, push notifications

Connected home programs

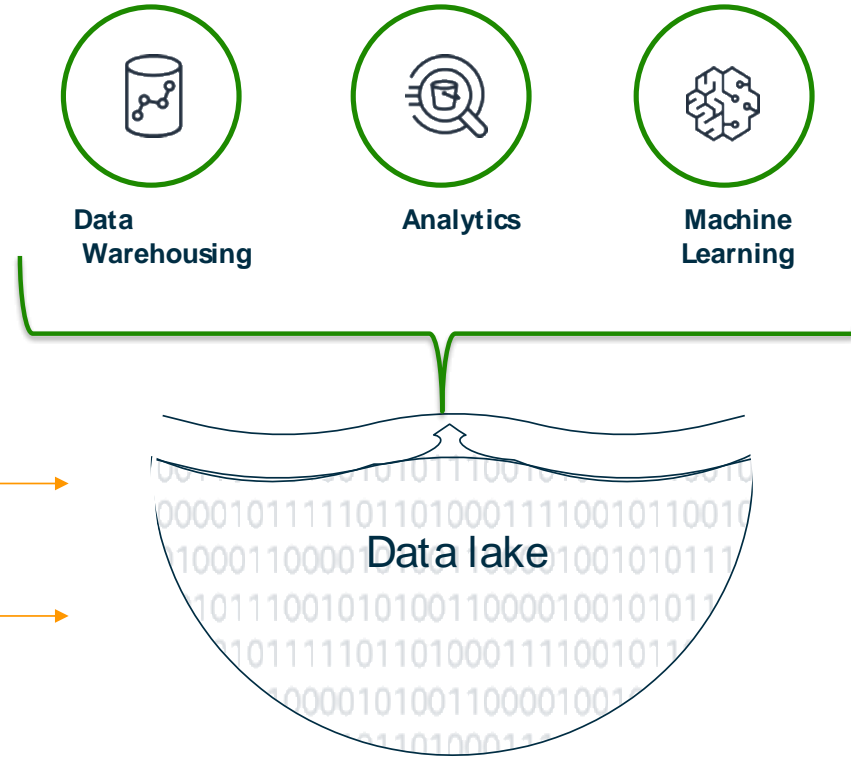Smart devices
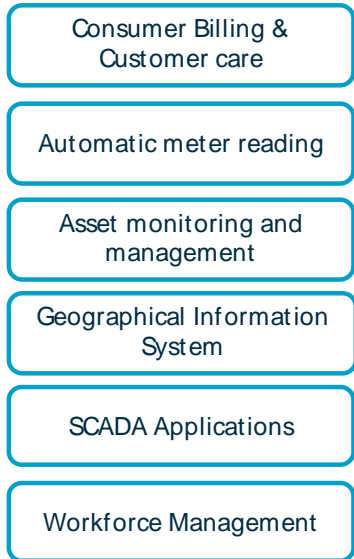
Digital consumer engagement

Turns text into lifelike speech, create applications that talk

Natural language processing to sentiment analysis

Integrate Alexa with your organization

Build Voice and Text NLU Conversational Automation

Digital Consumer Engagement

Automatic speech recognition Real-time voice transcribing

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.
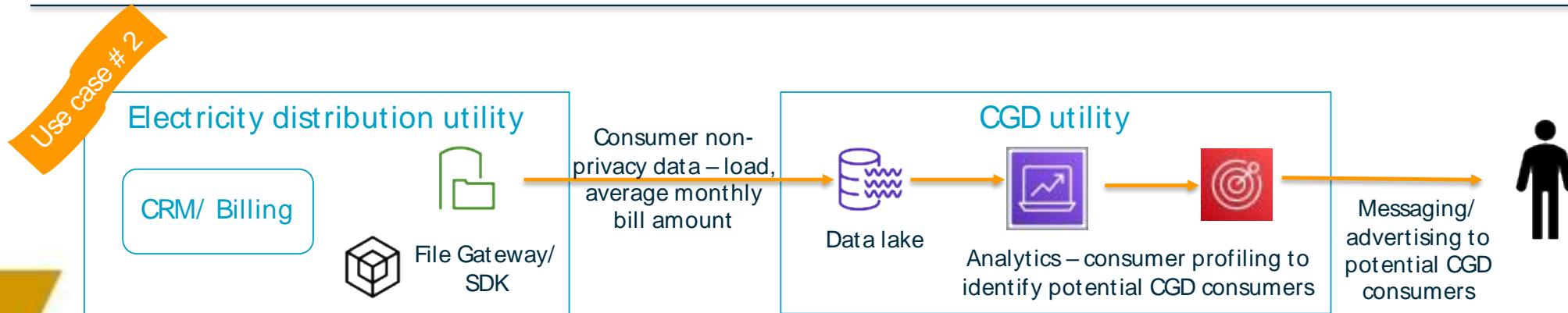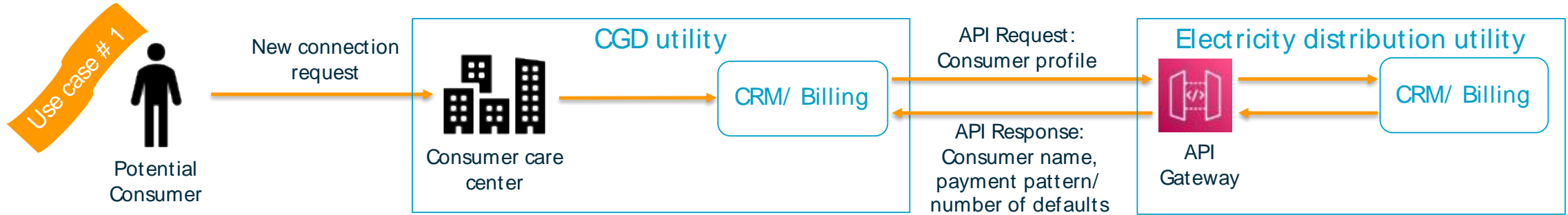
Usage analysis and patterns at consumer level and GA level

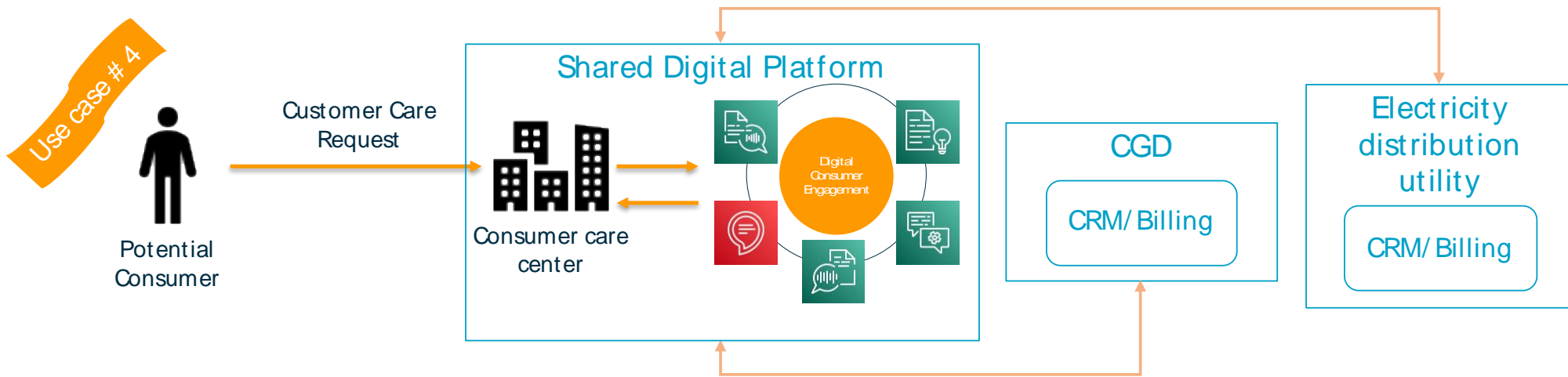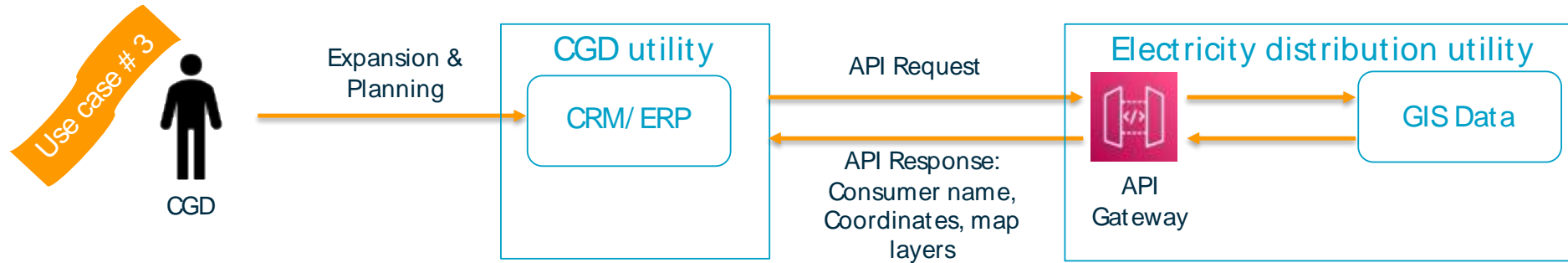Predictions: demand/ usage forecast, revenue prediction

Asset condition analysis using computer vision

Fraud detection using anomaly detection in usage patterns

Use case # 1

Potential Consumer

New connection request

Consumer care center

CGD utility

CRM/ Billing

API Request: Consumer profile

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

Electricity distribution utility

API Gateway

CRM/ Billing

Use case # 2

Electricity distribution utility

CRM/ Billing

File Gateway/ SDK

Consumer non-privacy data – load, average monthly bill amount

Data lake

CGD utility

Analytics – consumer profiling to identify potential CGD consumers

Messaging/ advertising to potential CGD consumers

Thank You

For discussions/suggestions/queries email: www.indiasmartgrid.org
www.isgw.in
Links/References (If any)

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