Google Cloud

Convergence of AI and 5G at the Edge
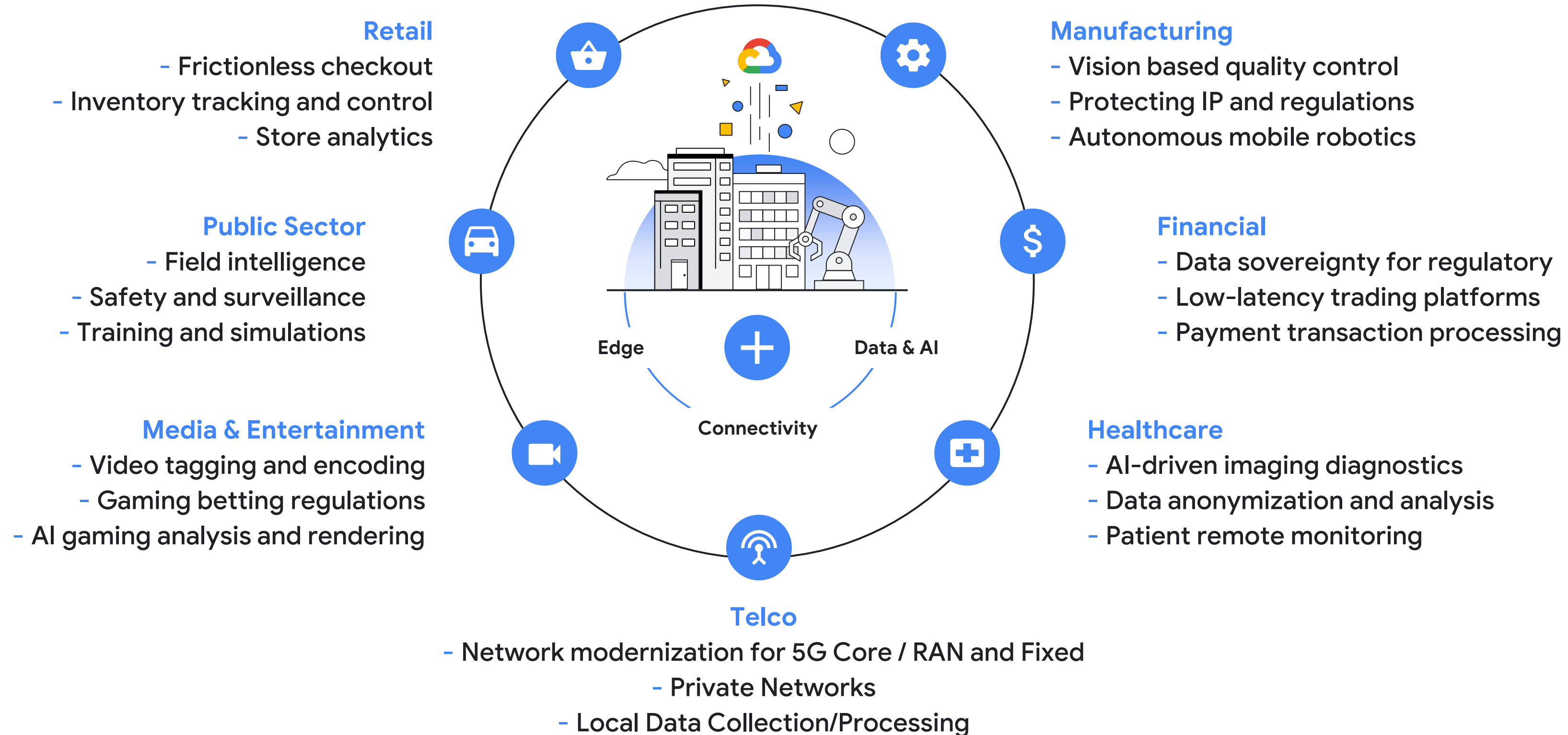
Mobile World Congress | Wed, 28 Feb, 2024

Ankur Jain, Vice President
Google Cloud's Global Telco Industry and Google Distributed
Cloud

The convergence of AI at the Edge is
unlocking transformative new use cases

Retail
- Frictionless checkout
- Inventory tracking and control
- Store analytics

Public Sector
- Field intelligence
- Safety and surveillance
- Training and simulations

Media & Entertainment
- Video tagging and encoding
- Gaming betting regulations
- AI gaming analysis and rendering

Manufacturing
- Vision based quality control
- Protecting IP and regulations
- Autonomous mobile robotics

Financial
- Data sovereignty for regulatory
- Low-latency trading platforms
- Payment transaction processing

Healthcare
- AI-driven imaging diagnostics
- Data anonymization and analysis
- Patient remote monitoring

Telco
- Network modernization for 5G Core / RAN and Fixed
- Private Networks
- Local Data Collection/Processing

Edge — Data & AI

Connectivity

Customer Challenges

Scalability and operability

How can I deploy and manage hardware and software infrastructure at scale?

Total cost of ownership

How can I optimize cost across multiple vendors across the stack, and account for Day 0-1-2 scale out?

Sovereignty, privacy, and security

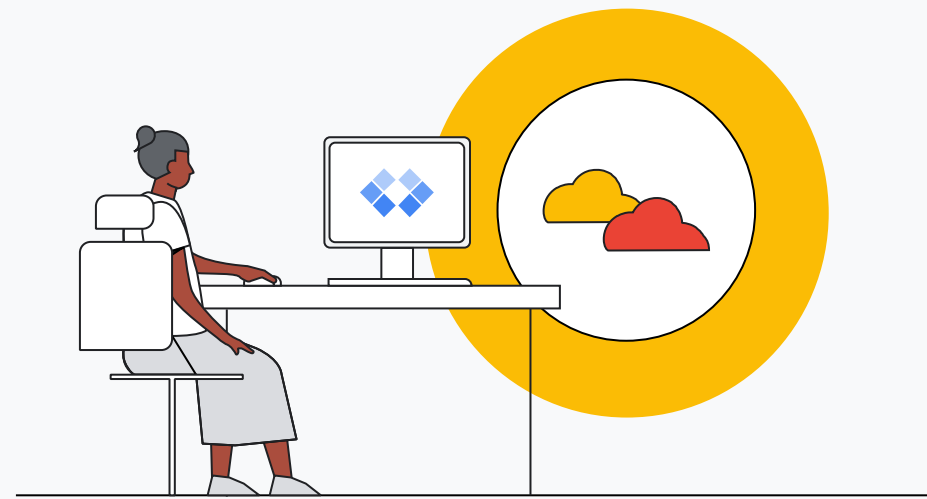How can I leverage the latest in AI and analytics while keeping my data secure within privacy and sovereignty regulations?

Choice of apps and services

How can I tap into an open ecosystem of applications, services, APIs and developers?
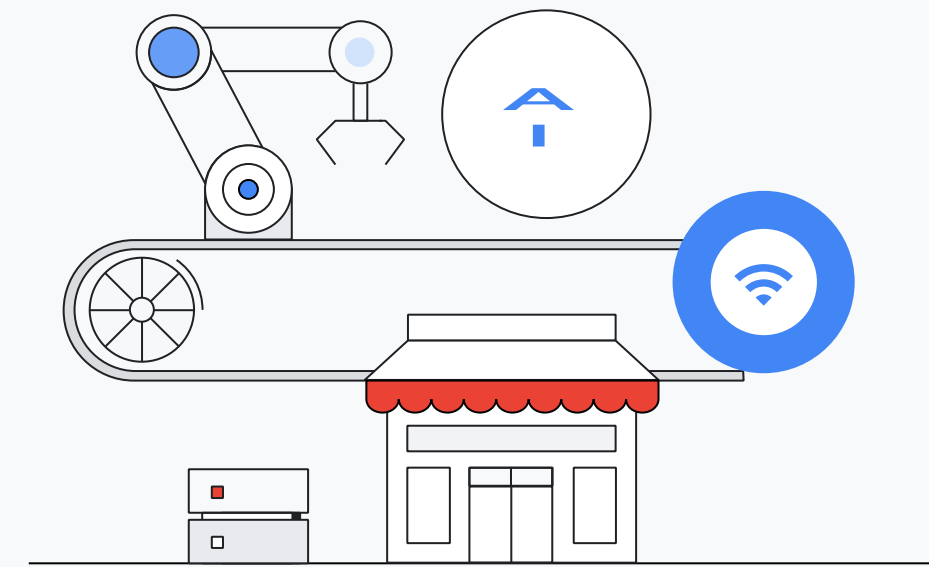
Google Distributed Cloud
Extending Google Cloud into the Data Center and Edge

Modern Infra Cloud

Developer Cloud

Data Cloud

Security Cloud

Collaboration Cloud

Google Cloud

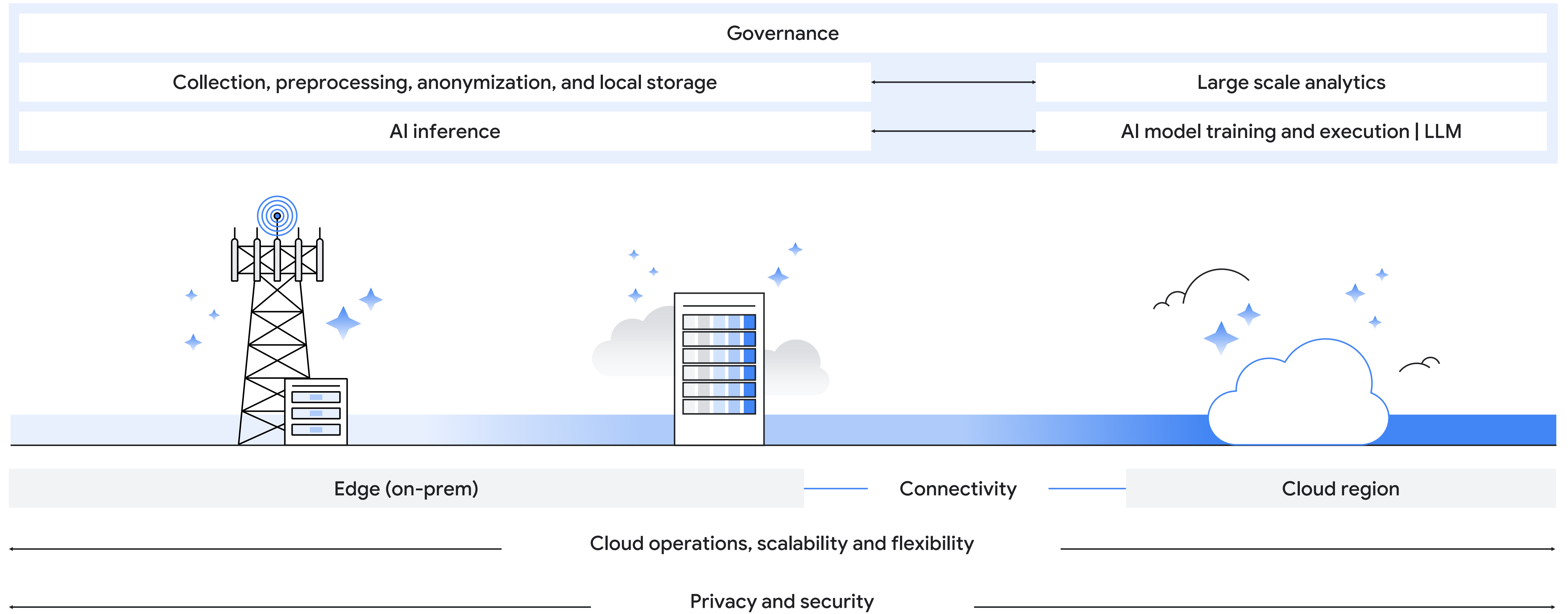Empowers broad scale, faster solution development, smarter business decisions, and connects people anywhere

Modern Infra Cloud

Developer Cloud

Data Cloud

Security Cloud

Google Distributed Cloud

Extends Google Cloud infrastructure and services into your data centers and at the edge

Data localization | AI and analytics on-premise

Governance

Collection, preprocessing, anonymization, and local storage ⟷ Large scale analytics

AI inference ⟷ AI model training and execution | LLM

Edge (on-prem) —— Connectivity —— Cloud region

Cloud operations, scalability and flexibility

Privacy and security

Network evolution | Hybrid network cloud deployment

OSS | BSS | IMS

5G Core ← → Hybrid 5G Core | NaaS

Cloud RAN

Fast Loop AI

xApps

AI inference

rApps

Edge (on-prem)　　　　Connectivity　　　　Cloud region

Cloud operations, scalability and flexibility

Privacy and security

Google Cloud
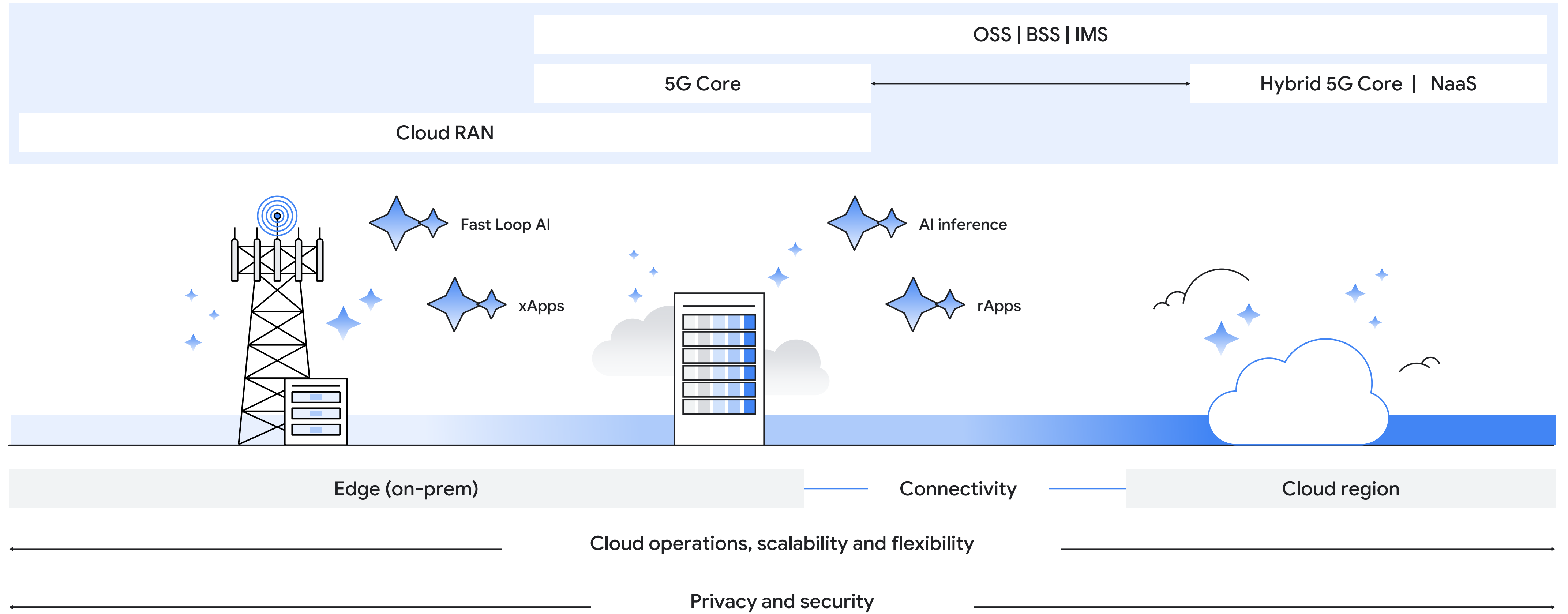
The modern retail store | AI-enabled experiences at the Edge

| Edge | Connectivity | Cloud region |

Cloud operations, scalability, and flexibility

Privacy and security

Google Cloud

Google Cloud

Thank you!