

NUTANIX™

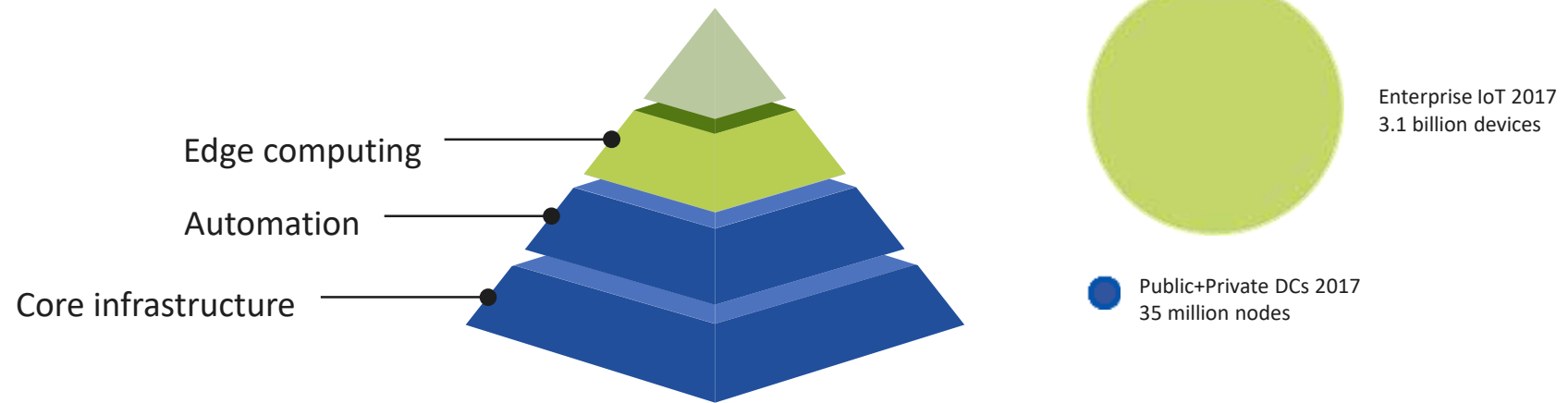
From Ambition to Action in IoT

IOT SOLUTIONS WORLD CONGRESS
SATYAM VAGHANI | SVP & GM, IOT & AI
OCTOBER 2019

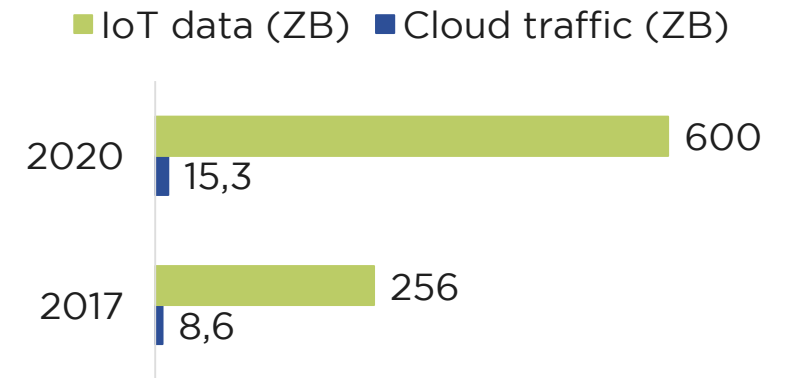
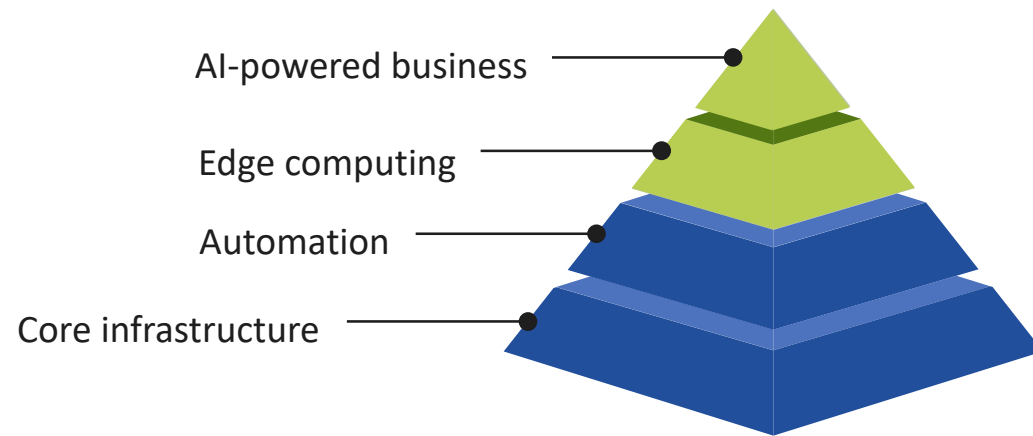




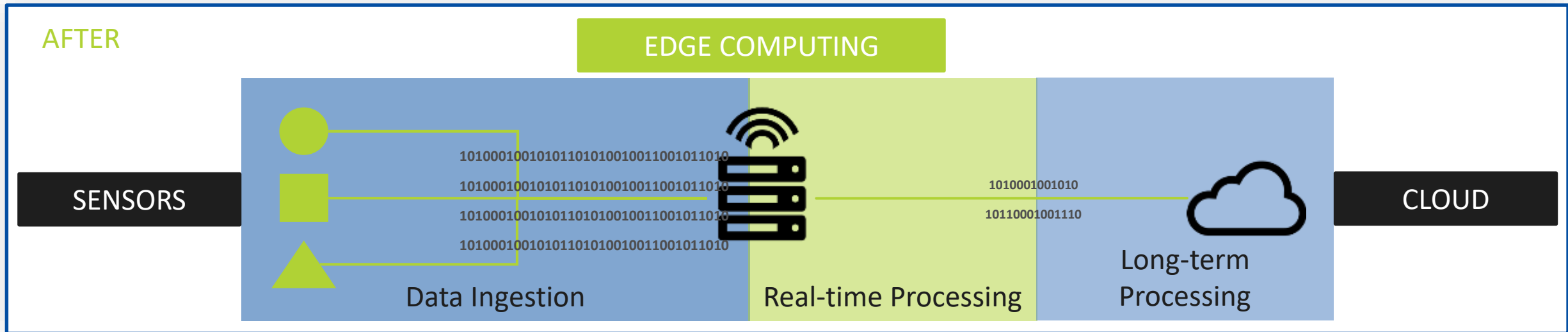
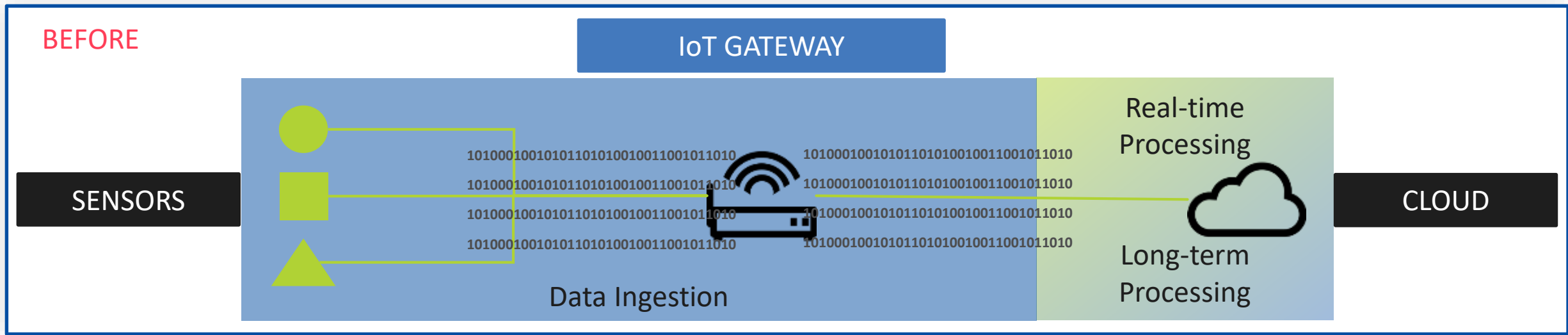
Digital Transformation Crossover



Digital Transformation Crossover



Key change: The Intelligent Edge



Technical pain-points

- 1 Planet-scale mission critical edge infrastructure and application lifecycle management
- 2 Next generation technologies like containers and AI on the edge
- 3 Data mobility and management across edge and cloud





Over 50
Number of countries
operating in



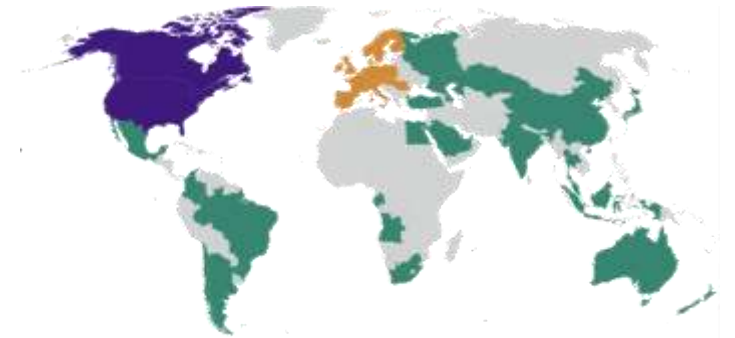
55,000
Number of client
locations working in



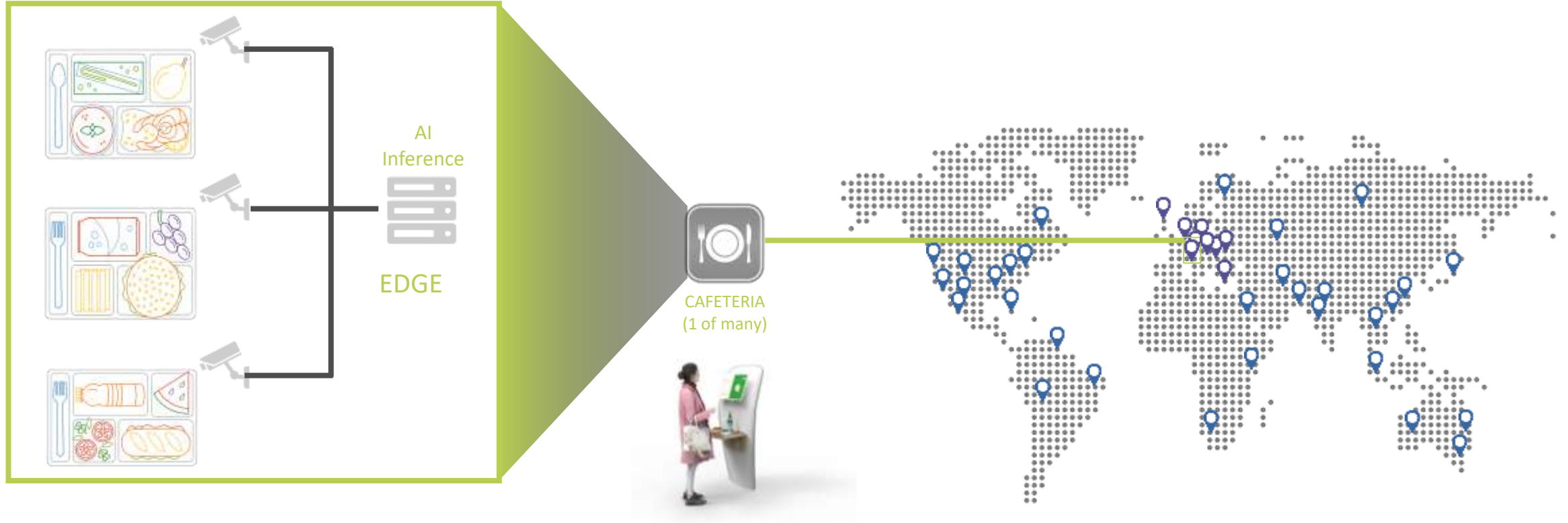
550,000+
Number of
employees



5.5 billion
Number of meals
served per year



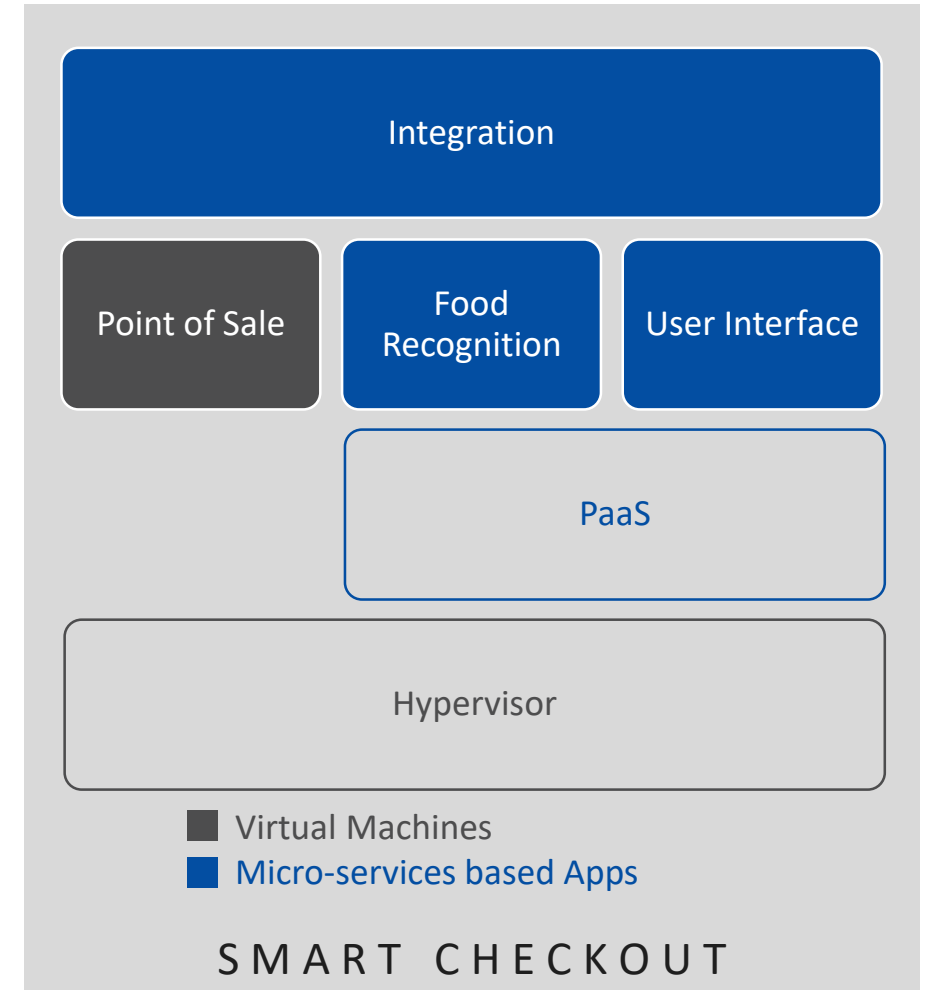
Ambition: 'Amazon Go' for restaurants



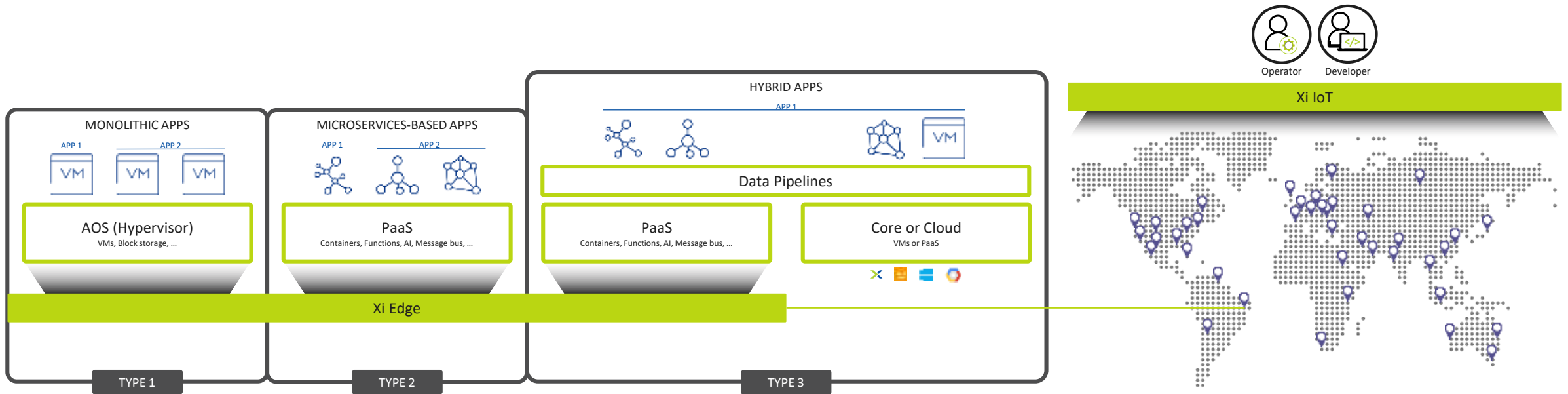
Respect the present, build for the future

SMART CHECKOUT CHALLENGES

- Includes mix of traditional and new generation applications
- Deployed on different hardware platforms at different times
- Speed and scale of deployment poses operational and security challenges



Design Patterns



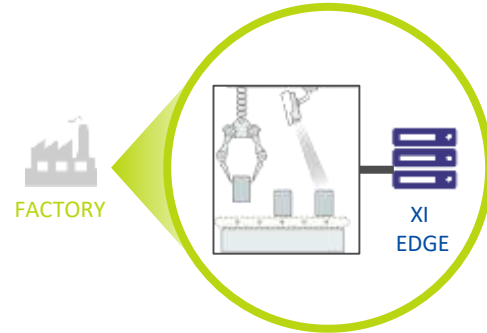
1. Respect the present, build for the future



STEP 1

FACTORY AUTOMATION

- SCADA/HMI
- Machine Condition Monitoring (MCM)



PLAN FOR...

- VM (Type 1) design pattern
- Planet-scale edge infrastructure and application lifecycle management, security



STEP 2

INDUSTRY 4.0

- Predictive Maintenance
- AI-based Product, Process checks

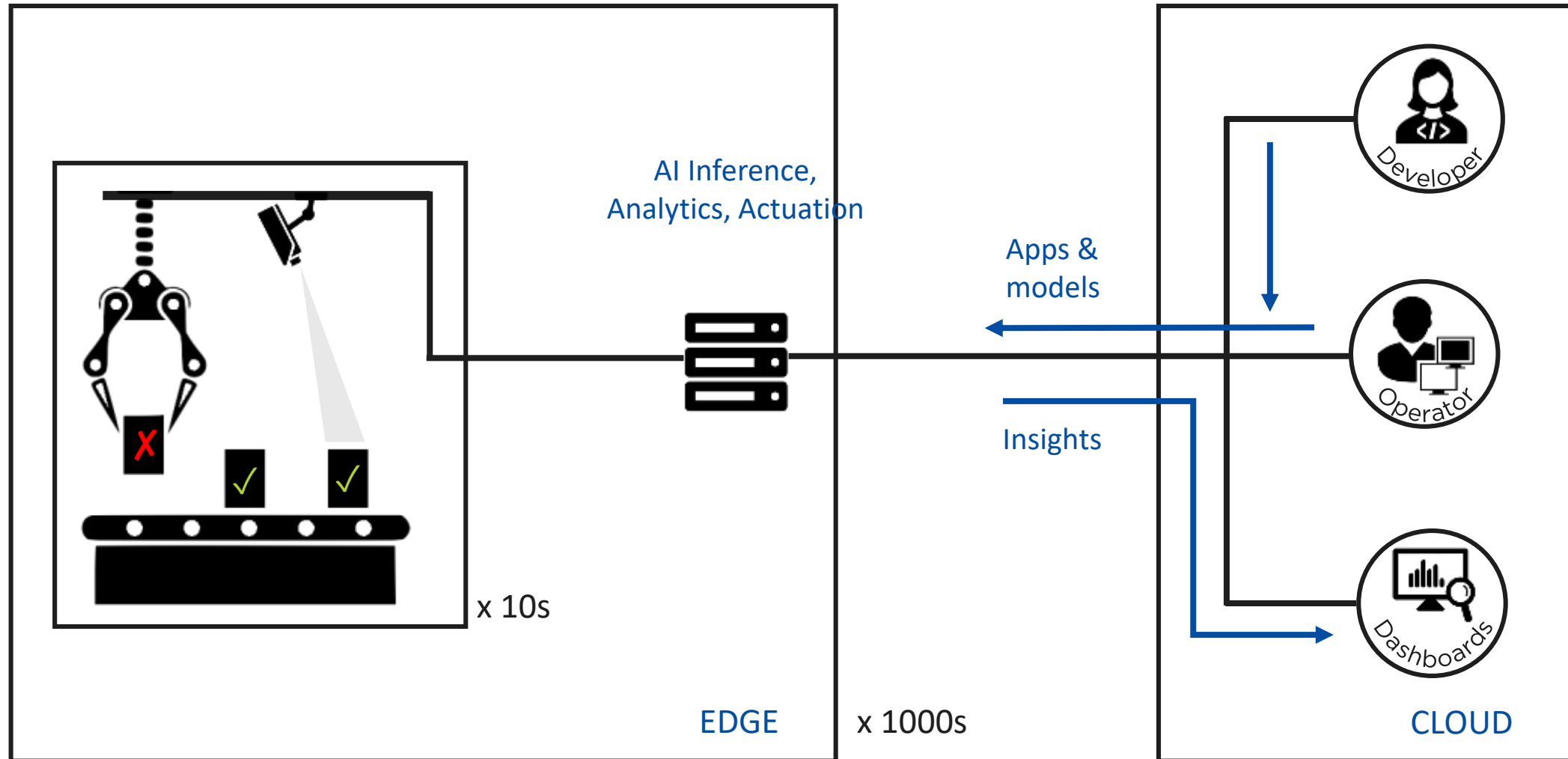
PLAN FOR...

- Containerized and microservices app (Type 2) design pattern
- AI and machine vision

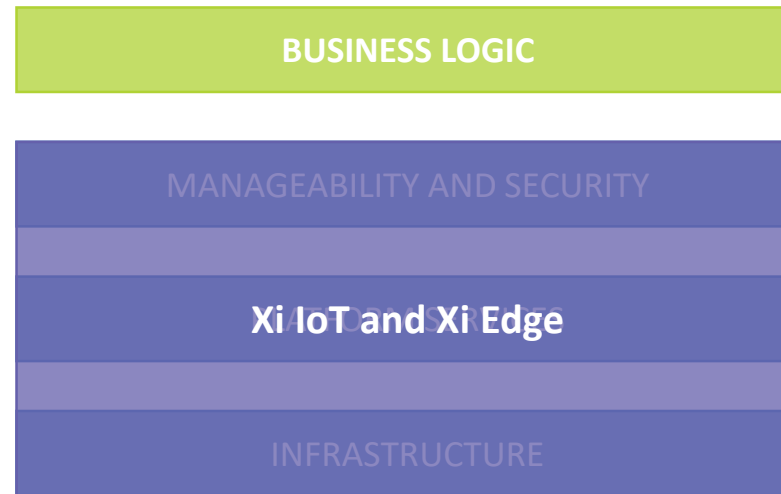




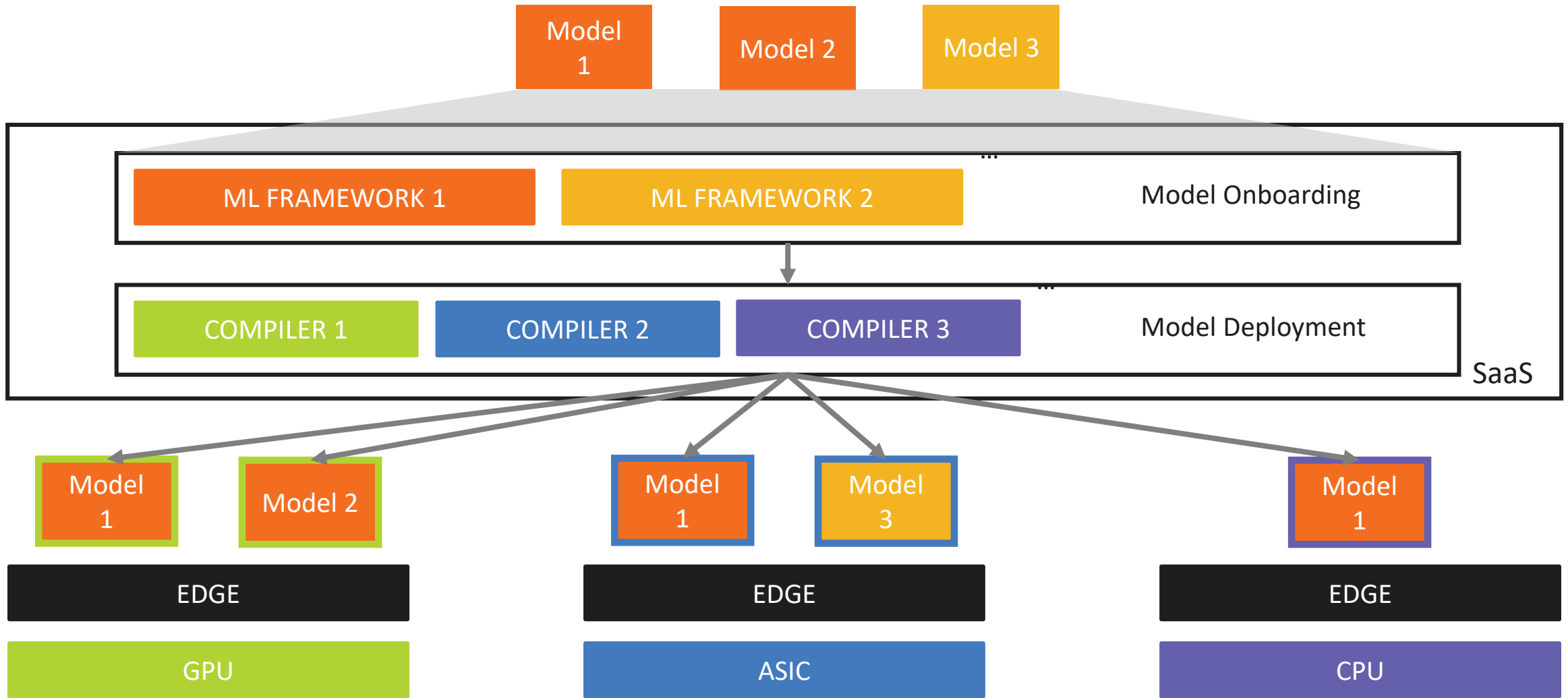
Predictive Maintenance, Product Quality Check, Supply Chain Automation Design Pattern



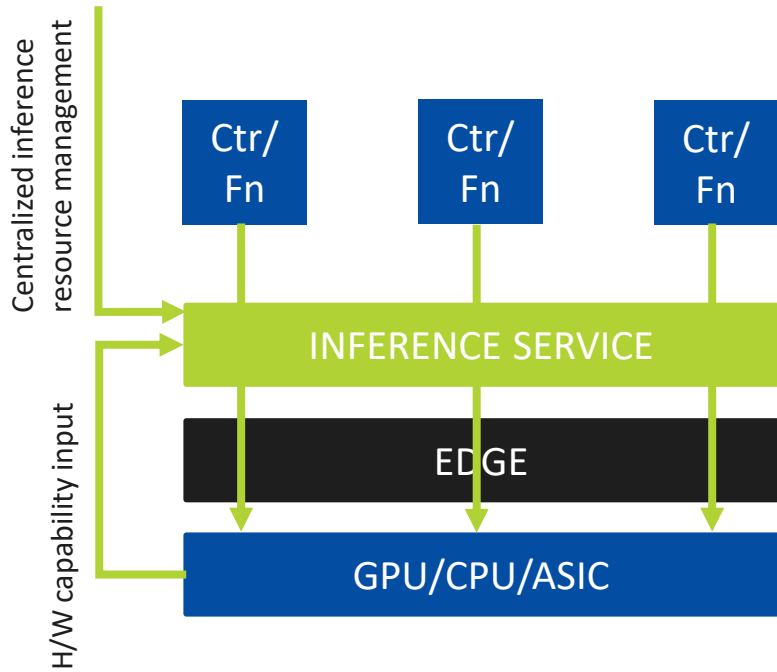
Edge deserves simplicity of Cloud



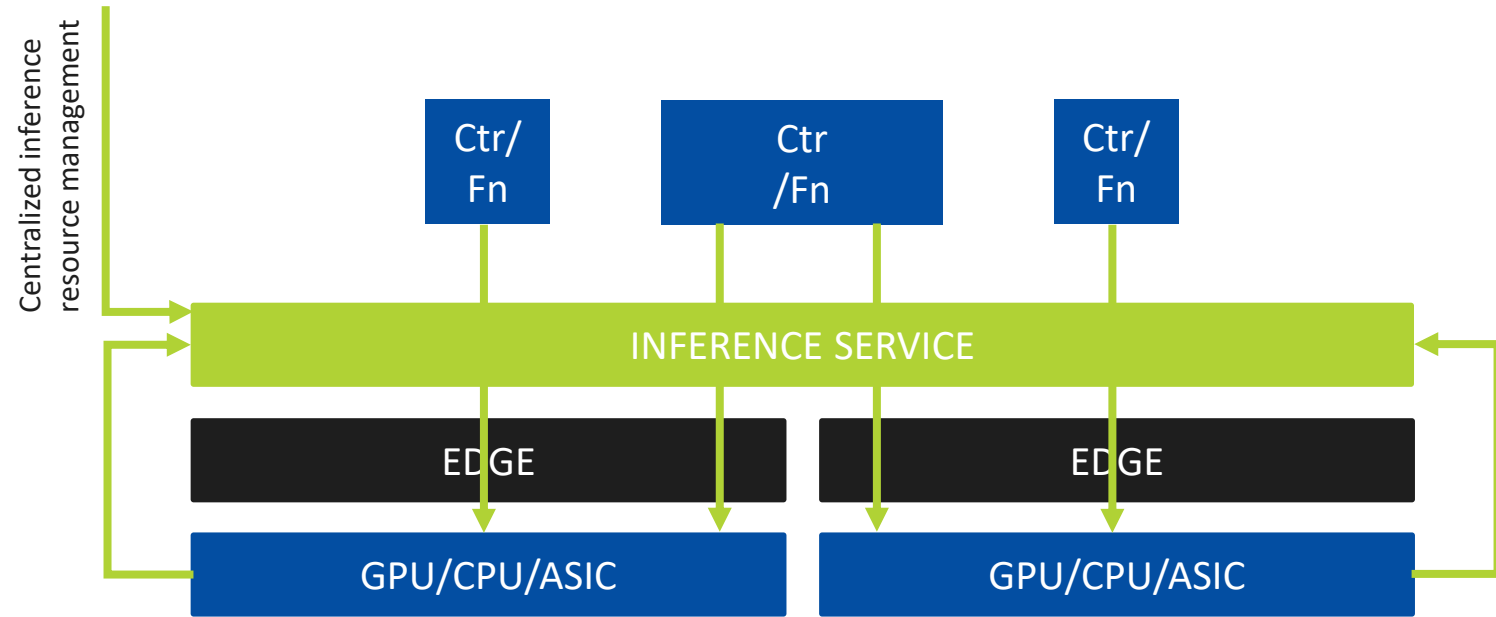
Industrializing AI: Handle framework and edge diversity



Industrializing AI: Resource Management



Dynamic allocation
Dynamic rebalancing

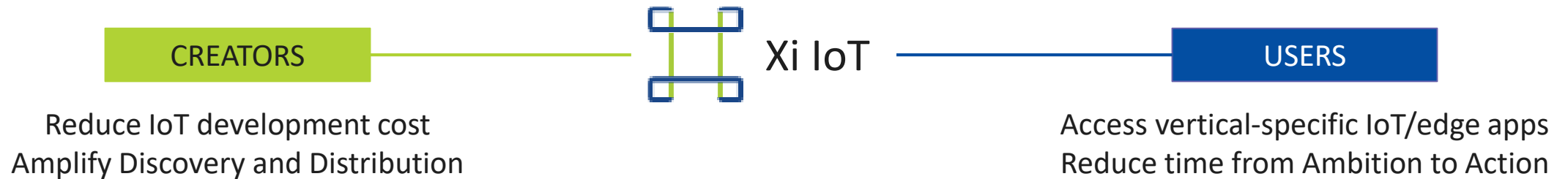


Easier to scale perf with use
Additional HA benefit



2. Prototyping success is a red herring to industrialization success

Distribution matters as much as software



Reducing friction of distribution

Xi IoT Cloud Instance

Digital Twin of Edge environments
in your or Nutanix's cloud at any
scale

Xi IoT App Library

Library of turnkey edge-based IoT
applications from Nutanix's ISV
and SI partners

Xi IoT Sensors

Ready-to-use integrations from
variety of data sources to easily
source real-world data

Capgemini 

HARDIS
GROUP



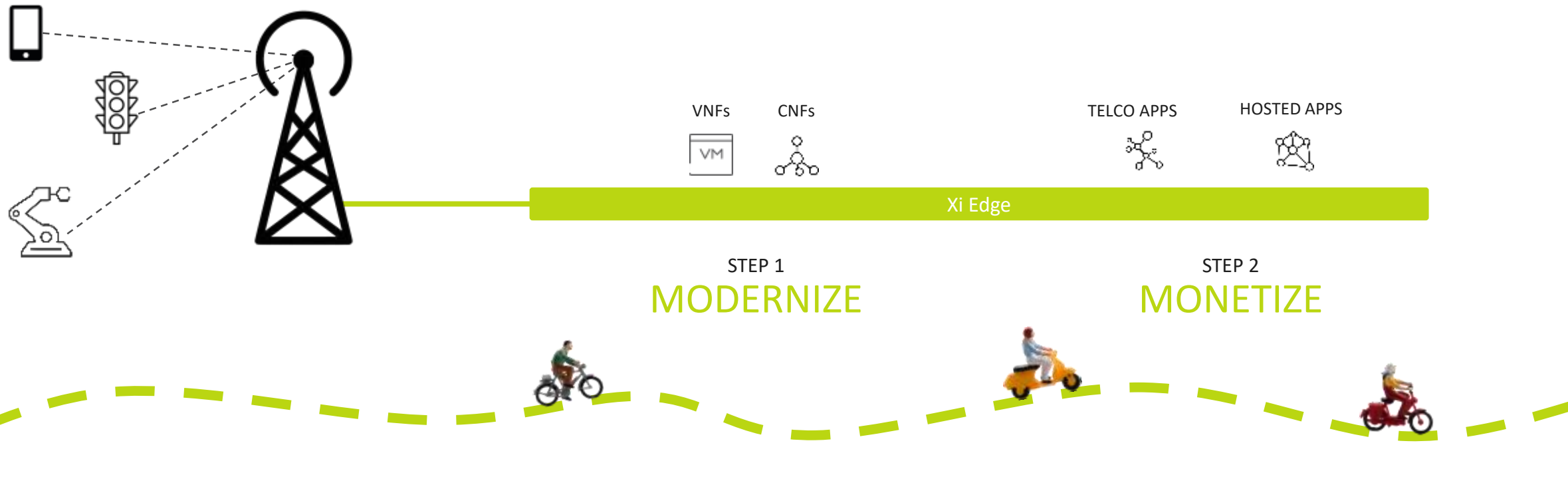
TOKYO ELECTRON DEVICE



Distribution and 5G MEC

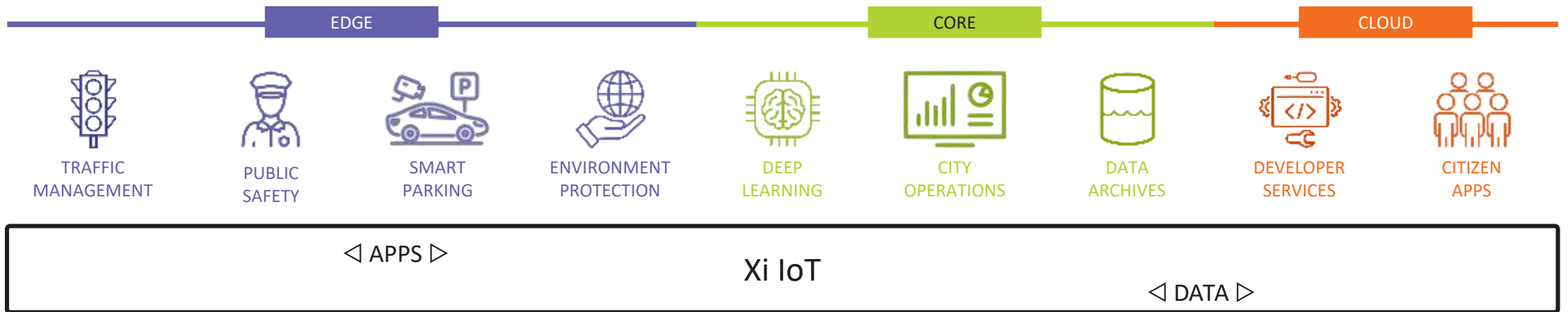
- HCI and planet-scale management
- From virtual to containerized network functions

- AI, IoT, AR/VR applications
- Host third party 5G apps via MEC



3. Distribution matters as much as software

Smart Cities: A case for a platform from Edge to Core to Cloud



What we learnt

- 1 Respect the present while building for the future
- 2 Prototyping success is a red herring to industrialization success
- 3 IoT distribution stacks are much harder than IoT software stacks
- 4 IoT use cases naturally expand to multi-cloud use cases, so plan early



The background features a blue-to-green gradient with a large, faint, stylized 'X' shape. The Nutanix logo is centered in the upper half of the image.

NUTANIX™
Thank You

nutanix.com/iot
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