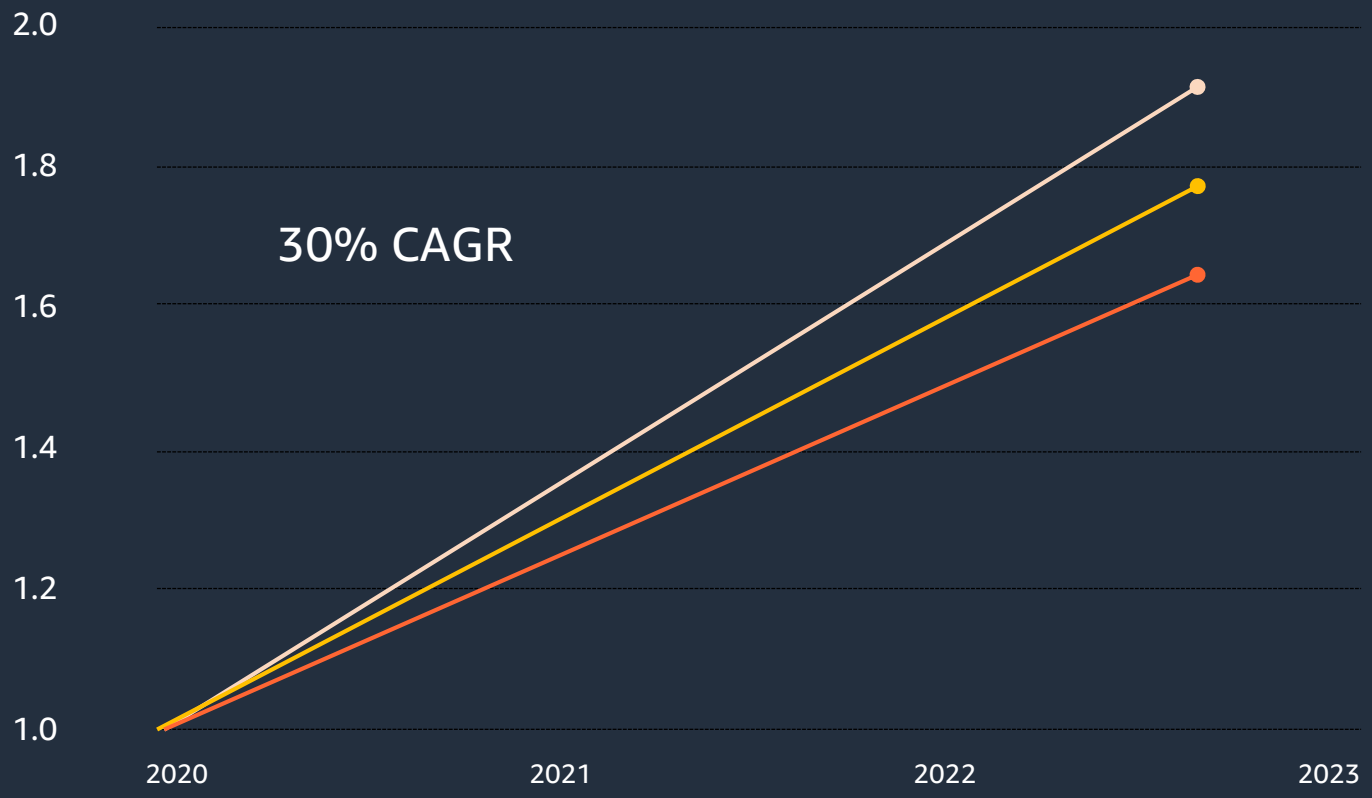
AWS PropTech Solution Day Hong Kong

AWS Panorama Brings Computer Vision To The Edge

Norman Lam – Head of Innovation (Armitage Technologies)
Albert Lau – Business Development Manager (AWS)

© 2022, Amazon Web Services, Inc. or its affiliates.

Visual data from IP cameras is doubling every 2.5 years



3,500 PB daily data from IP cameras

$13.4B video analytics market

175M enterprise IP cameras

However, **98%** of recorded footage is **never analyzed**

Source: Market Research Future: Global Surveillance Storage Market, and Global Market Insights: IP Camera Market Report

© 2022, Amazon Web Services, Inc. or its affiliates.

Computer vision can automate a variety of tasks

Detect, count, and track movement of objects

Classify objects based on color, condition, and type

Measure distance and proximity

Read text and numbers

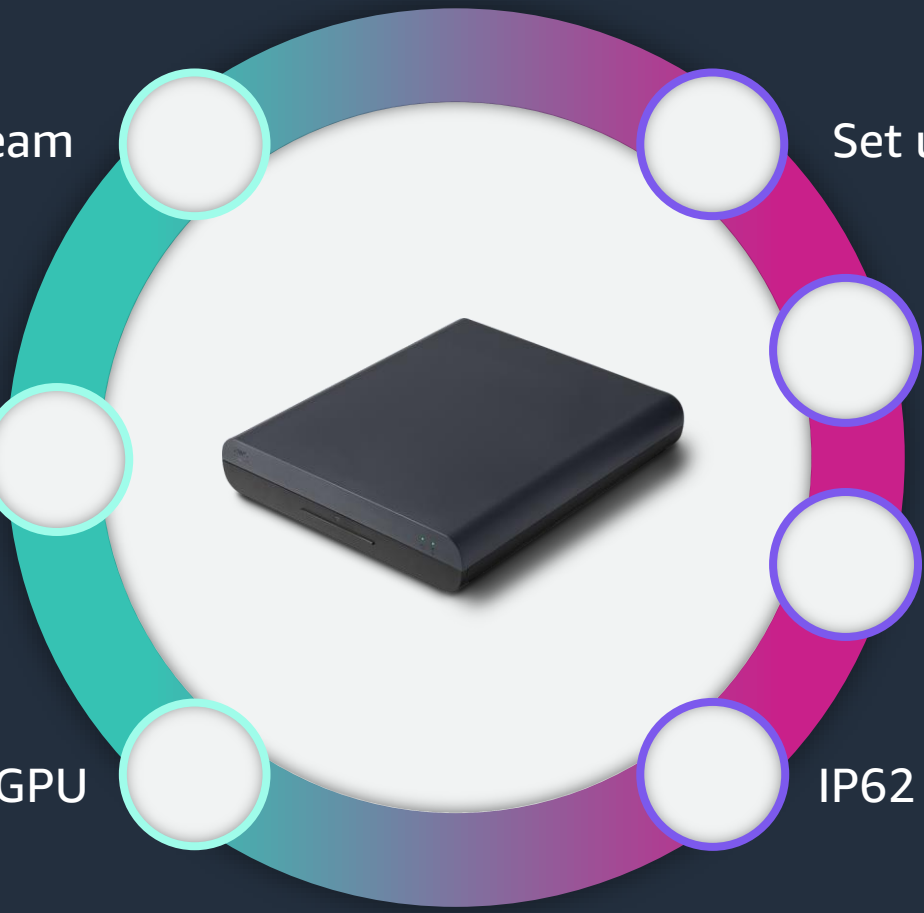
Recognize gestures and physical activities

© 2022, Amazon Web Services, Inc. or its affiliates.

Introduction of AWS Panorama

© 2022, Amazon Web Services, Inc. or its affiliates.

AWS Panorama Appliance
Powerful CV appliance for industrial environments



Multiple models per stream

Set up in minutes

Connects to IP cameras

Multiple camera streams in parallel

Runs custom models or production-ready CV apps at the edge

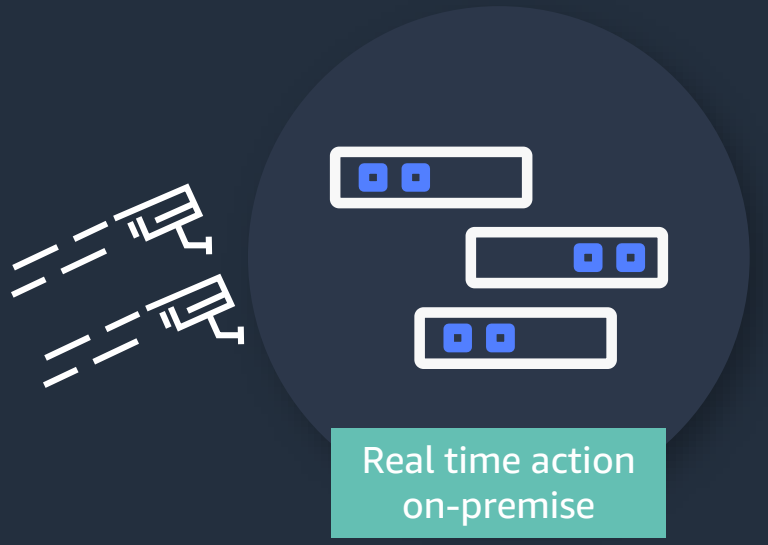
NVIDIA Xavier AGX GPU

IP62 ruggedized device

© 2022, Amazon Web Services, Inc. or its affiliates.

AWS Panorama Appliance
Powerful CV appliance for industrial environments

On-premises



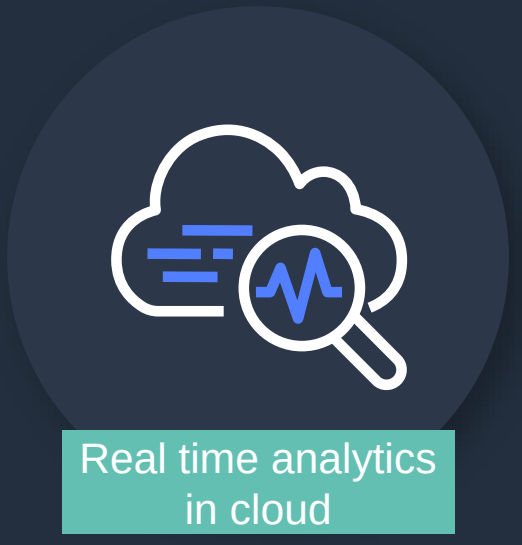
Real time action on-premise

On-premises video streams analyzed in real time on the Panorama Appliance

Cloud

Creating and managing CV applications at the Edge and application and device fleet management

Analytics

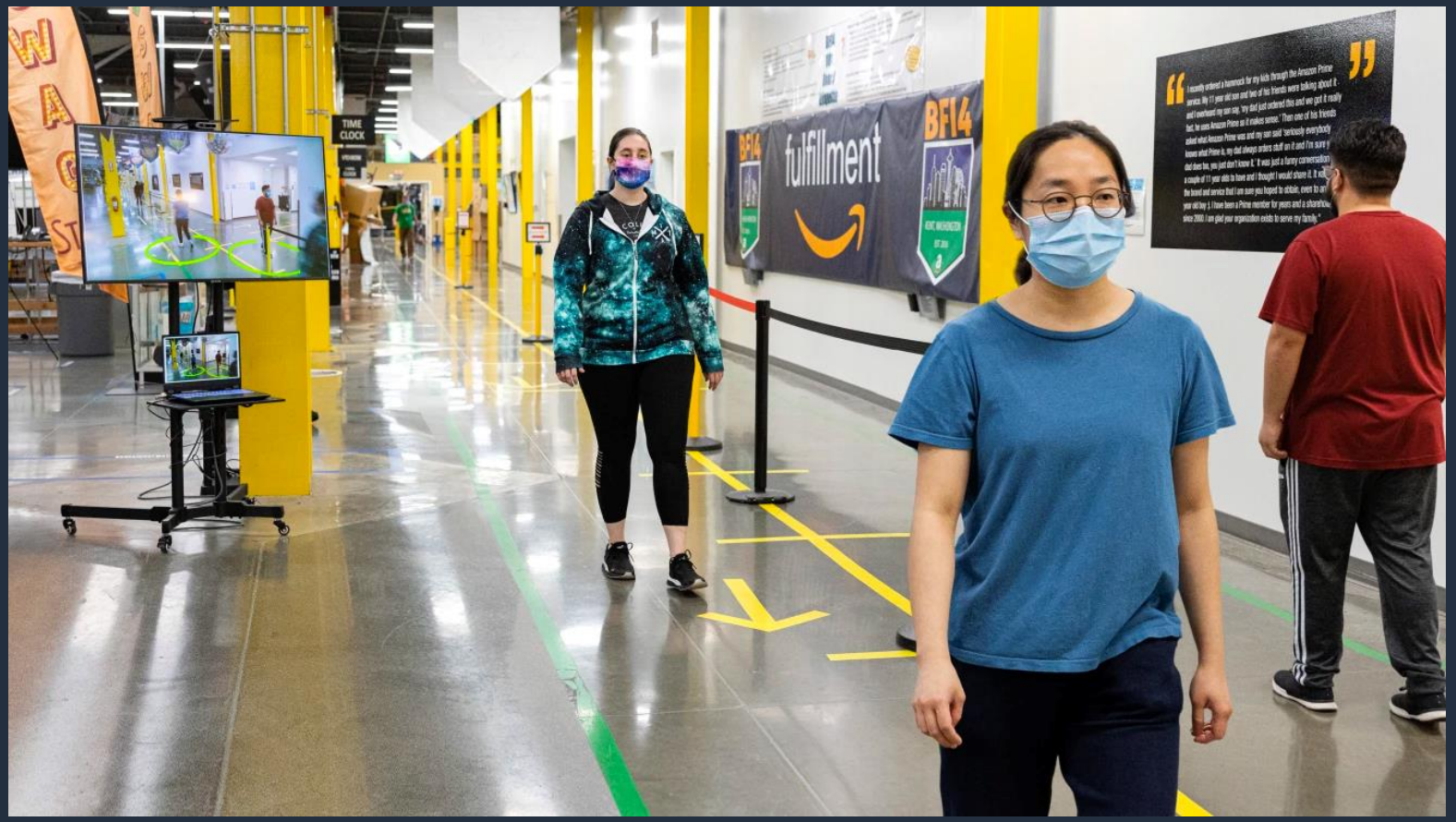


Real time analytics in cloud

Application results and alerts sent to business systems for action and analysis

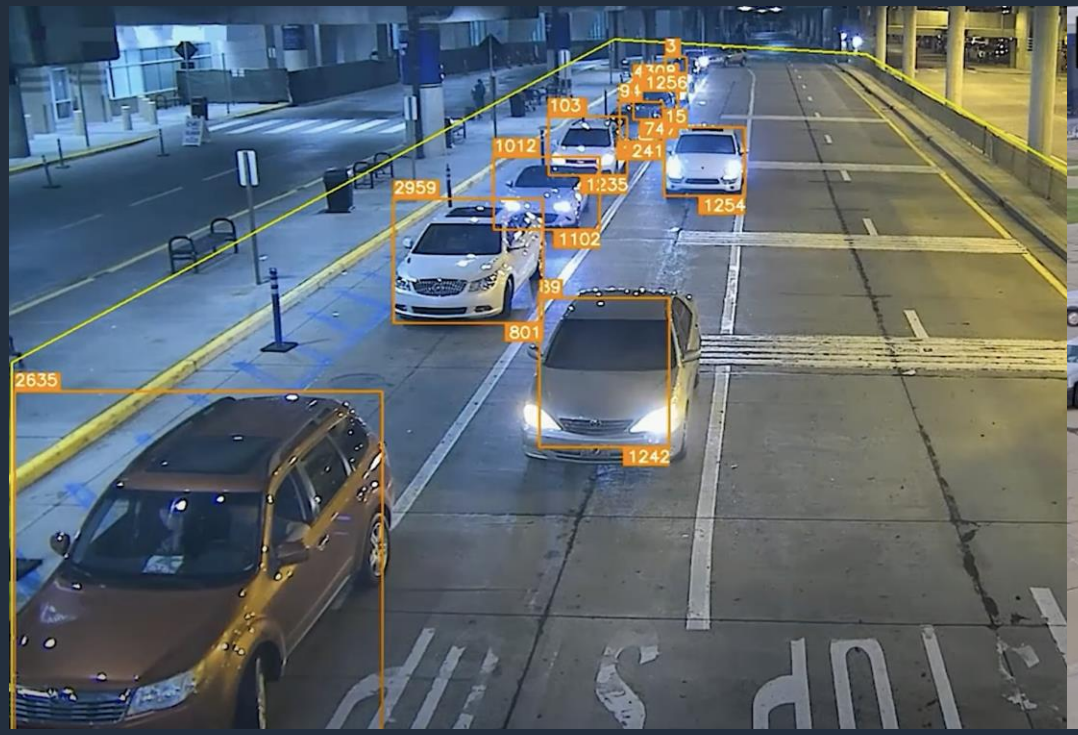
© 2022, Amazon Web Services, Inc. or its affiliates.

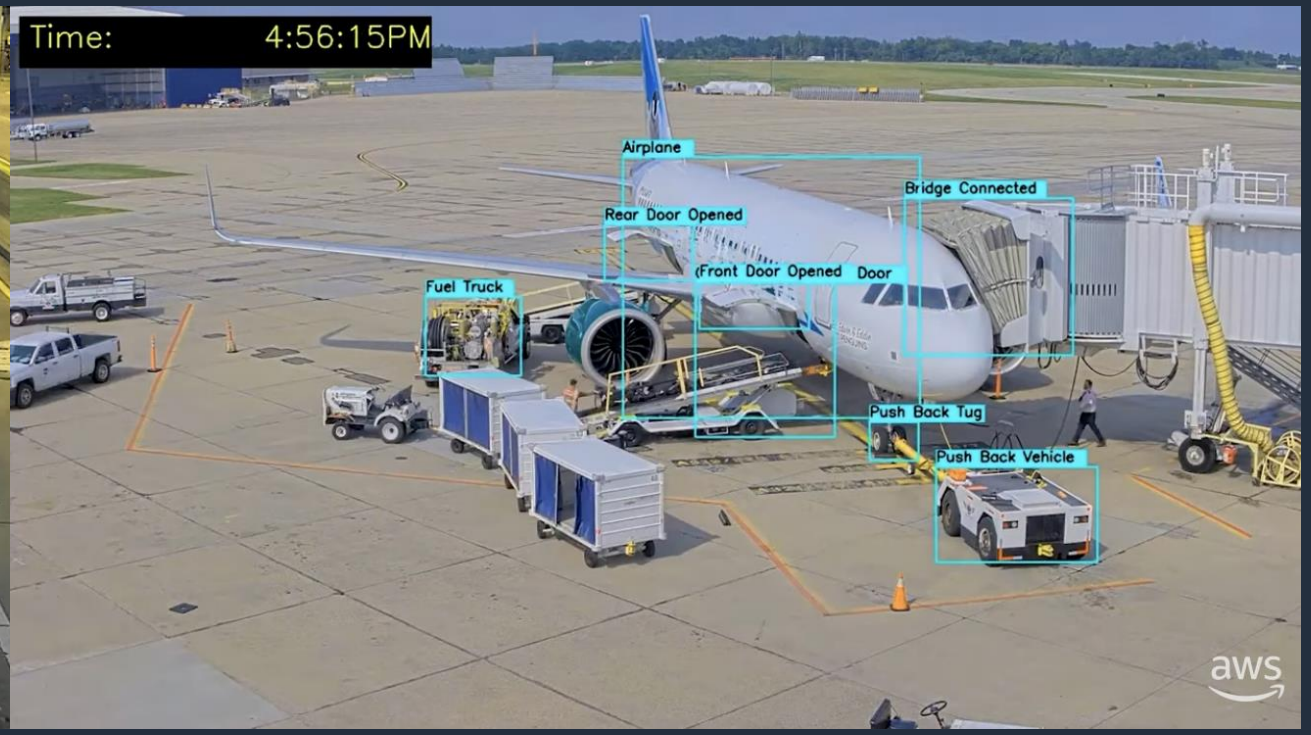
Case Example | Amazon Fulfillment Center Distance Assistant



© 2022, Amazon Web Services, Inc. or its affiliates.

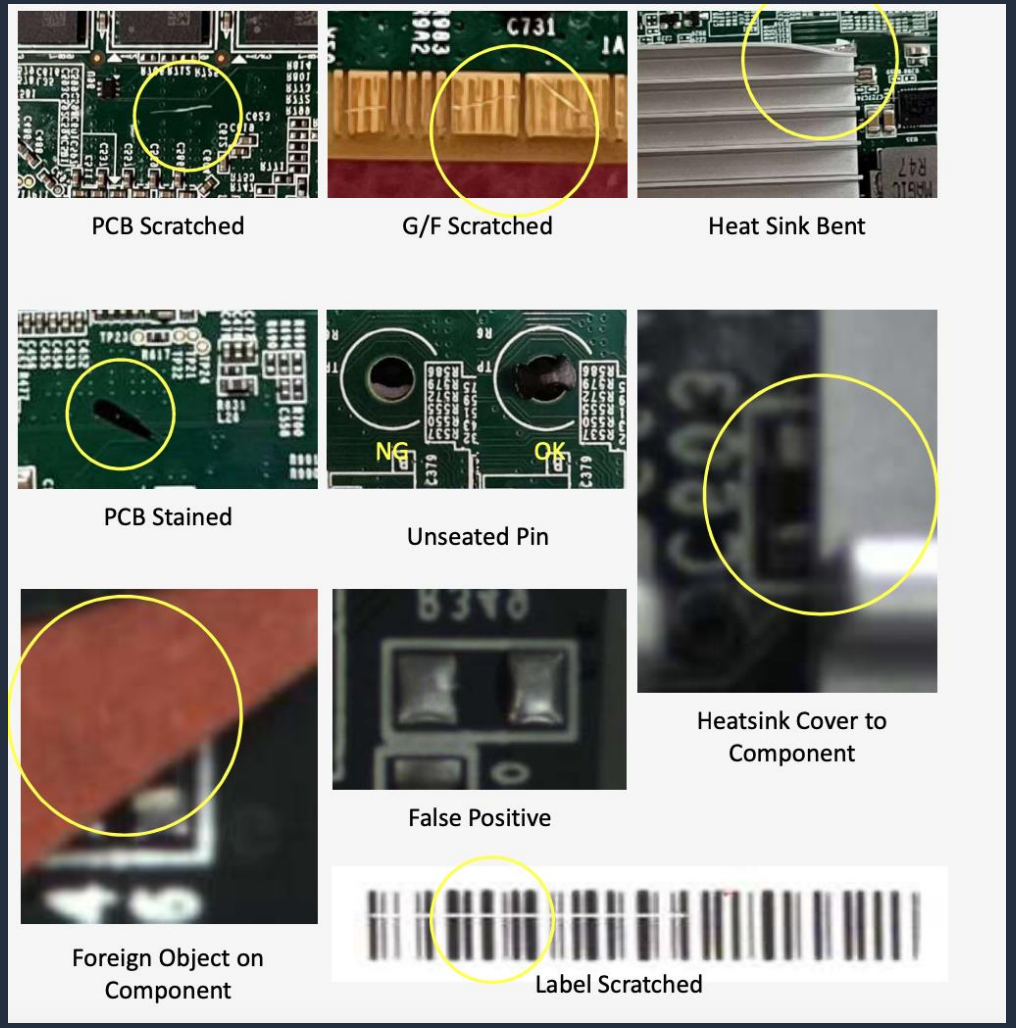
Case Example | Optimize Traffic Management





© 2022, Amazon Web Services, Inc. or its affiliates.

Case Example | Evaluate Manufacturing Quality



© 2022, Amazon Web Services, Inc. or its affiliates.

AWS Panorama Enables New Capabilities Across Industries

Improve supply

Evaluate manufacturing quality

Enhance worker

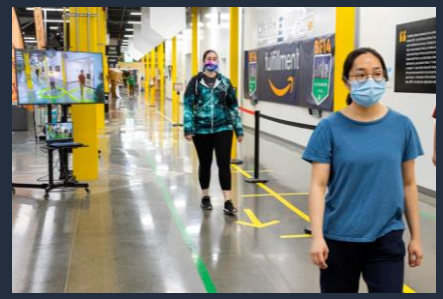
Improve order

Smart meter reading

Gather retail

Optimize traffic

Out-Of-Stock alarm



Physical social distancing

leak monitoring

© 2022, Amazon Web Services, Inc. or its affiliates.

Get started with AWS Panorama

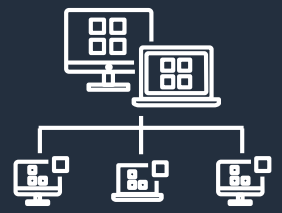
Identify use case and define KPIs and success metrics

Planning

Build or buy CV app and test with AWS Panorama emulator

Development

Purchase and deploy AWS Panorama Appliance with CV app



Deployment

© 2022, Amazon Web Services, Inc. or its affiliates.

armitage

Your Solutions Partner Since 1972

turning Data into Insights

We are a full service IT company specialising in providing solutions and building technology that are needed for the 21st century.

We connect decision makers to a dynamic network of data, people and ideas. With our expertise, we assure quality and premium insights for your projects, from cradle to finale.

WE KNOW TECHNOLOGY.

Company Background

- Establishment since 1972
- One of Leading Local IT Solution Provider in HK & PRC
- Our coverage: Governmental Departments, Public, Logistics, and Commercial sectors
- Partnership with aws partner network

© 2022, Amazon Web Services, Inc. or its affiliates.

Company Background

SOA-QPS5

CMMI DEV/3 SM
Exp. 2018-08-20 / Appraisal #25018

Bronze Award 銅獎
Hong Kong ICT Awards 2011 香港資訊及通訊科技獎

2017 HKMA Quality Award
SPECIAL AWARD FOR SMEs

Standard Offer Agreement for Quality Professional Service
Provision of IT Service to Government Department on 28Jan 2022

System Certification ISO 9001 SGS
UKAS Management Systems 0005

bsi. ISO/IEC 27001 Information Security Management
IS 619133

Silver Award 銀獎
Hong Kong ICT Awards 2012 香港資訊及通訊科技獎

HAPPY 開心企業 COMPANY 5years+

中國優秀軟件產品 優

2017 中小企最佳營商夥伴 THE BEST SME PARTNERS Economic Digest 經濟一週

MANPOWER DEVELOPER Awarded by ERB

友商有良 2020 Partner Employer Award 嘉許計劃

5 years+ 商界展關懷 caringcompany

证书
2007 年度优秀软件产品
软件名称：万达企业管理系统软件(AIMS V3.0)
申报单位：万迅电脑软件(深圳)有限公司
中国软件行业协会 CHINA SOFTWARE INDUSTRY ASSOCIATION

© 2022, Amazon Web Services, Inc. or its affiliates.

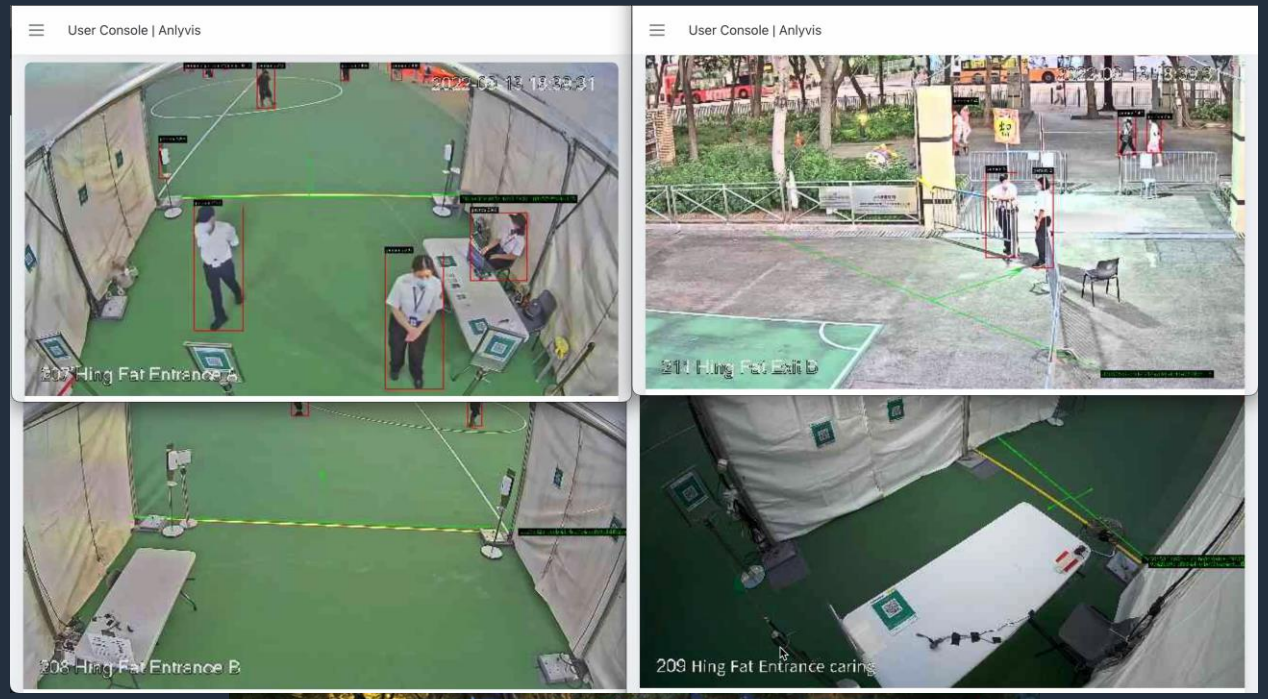
Case Sharing
Outdoor Event People Counting

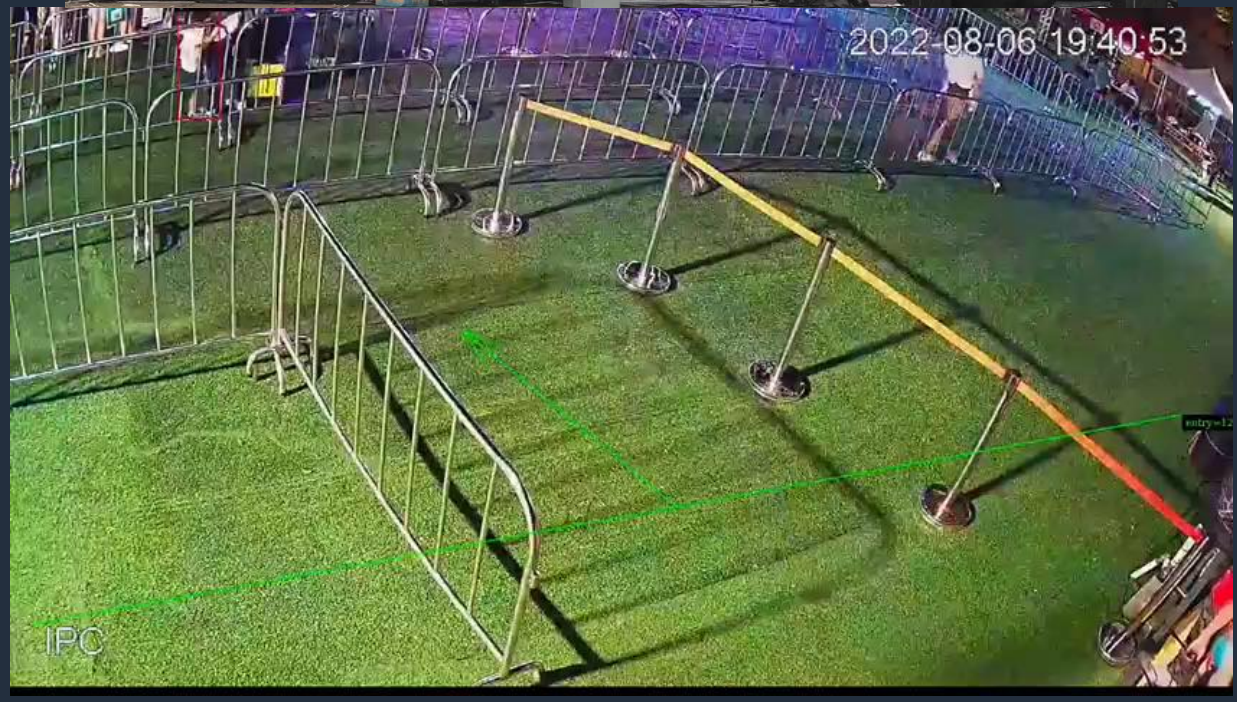
© 2022, Amazon Web Services, Inc. or its affiliates.

Outdoor Event People Counting – AWS Panorama Use Case

- Reliable 24/7 monitoring, day-or-night, in any weather
- Set network camera at Outdoor; Video & Data transmission via 5G in Real-time
- Capable of identifying
  - People In/Out at entrance & exit
  - Dwell (waiting) Time for queuing
  - Zonal Counting for reception

© 2022, Amazon Web Services, Inc. or its affiliates.



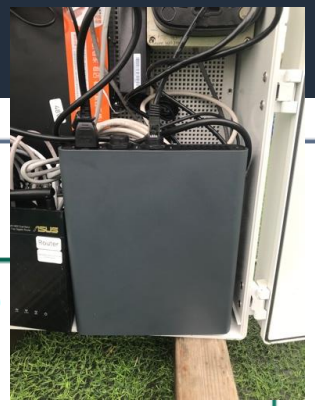


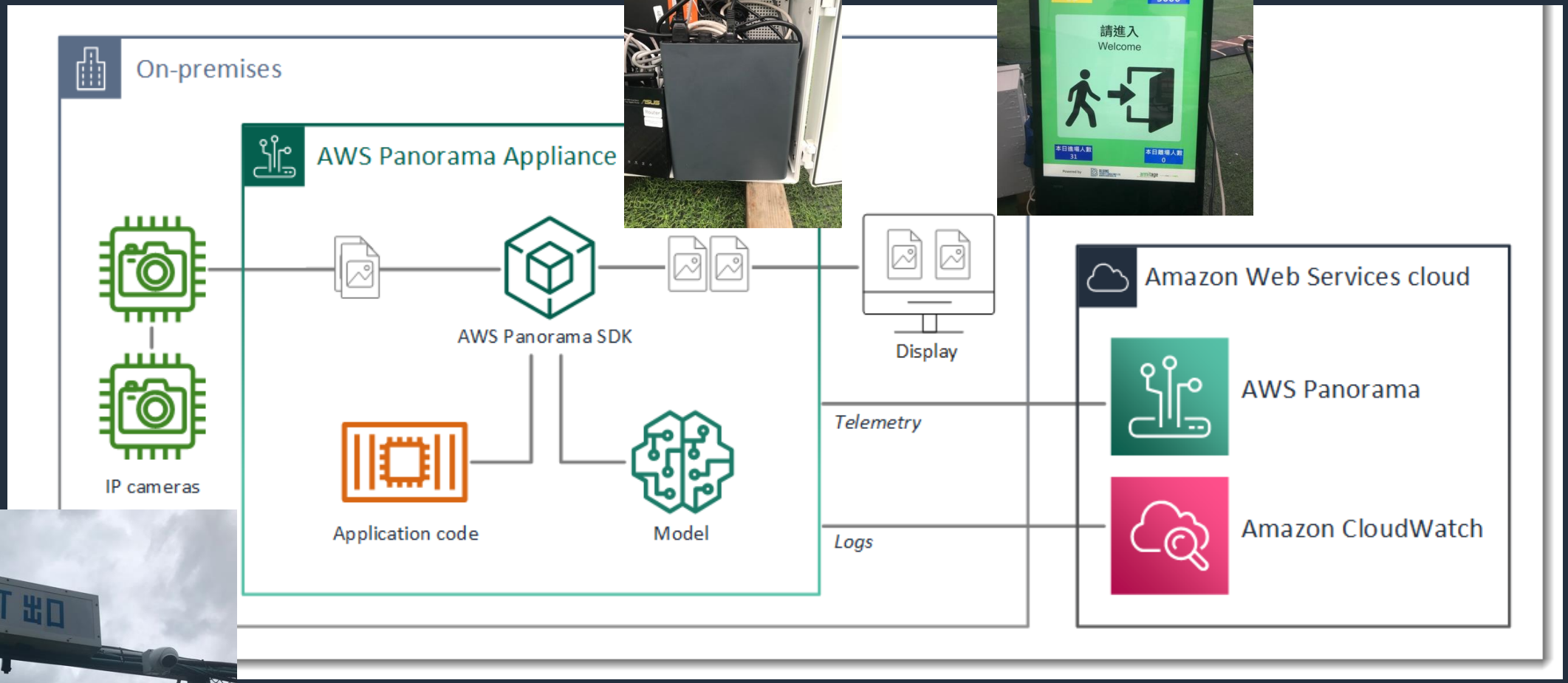
© 2022, Amazon Web Services, Inc. or its affiliates.

Outdoor Event People Counting - AWS Panorama Use Case

© 2022, Amazon Web Services, Inc. or its affiliates.

Outdoor Event People Counting - AWS Panorama Use Case





© 2022, Amazon Web Services, Inc. or its affiliates.

Armitage Upcoming AWS Panorama Use Case

Retail

Property / Crowd Management

Construction Site

Logistics / Transportation

Manufacturing

SETTING	Retail	Property / Crowd Management	Construction Site	Logistics / Transportation	Manufacturing
SHORT DESC-RIPTION	Human/Pose Analysis for Behavioural	Alert for Stranger Detection / Wheelchair or Stick Detection	Workers Counting / Detection	Truck and Cargo Tracking / Recognition	Monitoring Production

© 2022, Amazon Web Services, Inc. or its affiliates.