engage

Communications and Digital Engagement Platforms

Engage Digital Platform

Converges the Power of Programmable Communications, Conversational AI and Computer Vision

Connected Digital Devices

- Smart Phone/ Tablet
- Cameras
- Sensors
- Drones / Vehicles
- Wearables
- Kiosks

Simple APIs, Plug & Play SDKs, Low/No-code UI, and Programmable Applications

Built on carrier-proven underlying technologies deployed by 200+ mobile operators globally

Enabling Unique Digital Experiences

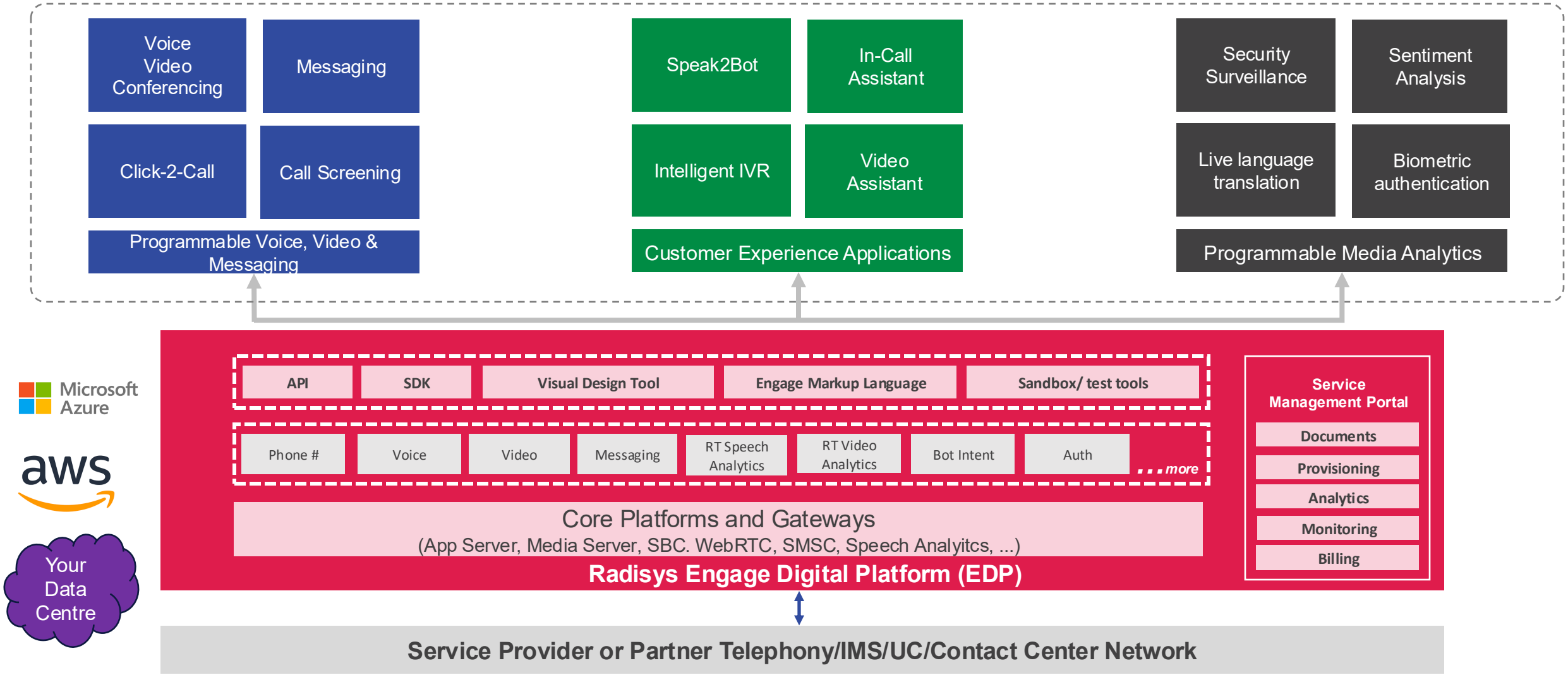
- Communication & Collaboration
- Face / Object Video Recognition
- Augmented Reality
- Speech Rec & Analytics
- IoT Triggered Real Time Communication

Accelerates Time to Revenue for Service Providers to Offer Innovative Digital Services

Engage Digital CPaaS Platform (EDP)

Programmable Communication & Digital Engagement

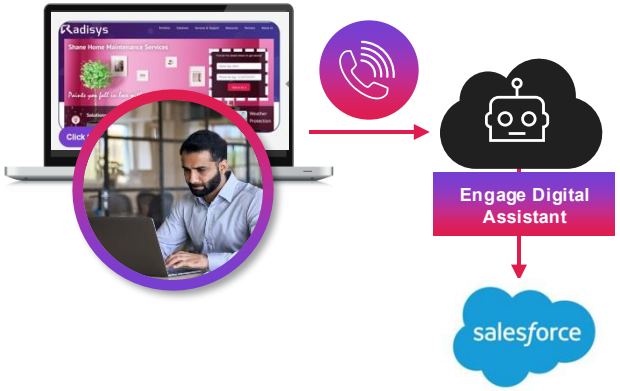
Multiple Monetization Opportunities



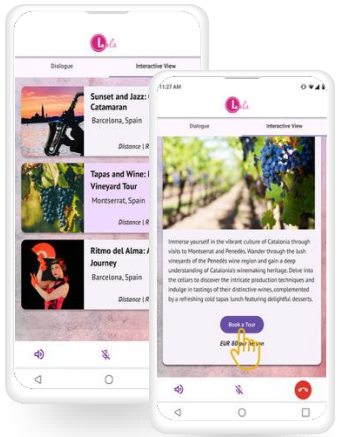
Radisys Engage Use Cases & Applications

5G Network API and Computer Vision
(Industry 4.0 use cases)

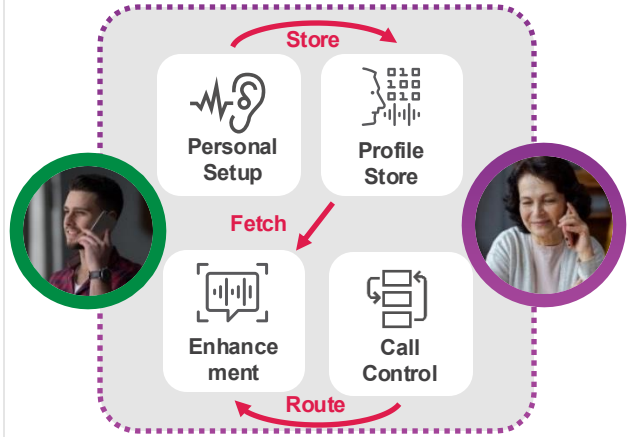
Gen AI based Digital Assistant



5G New Calling

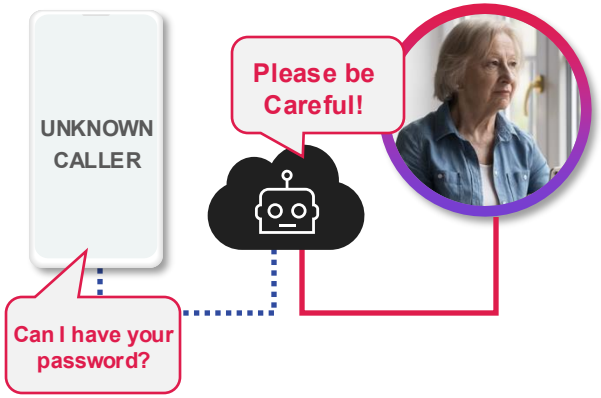


Clarity

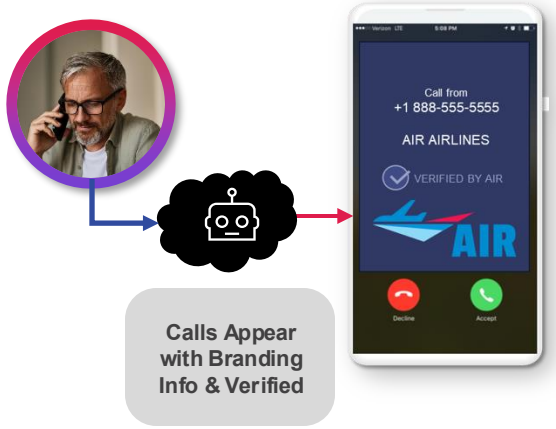


Live Call Translation

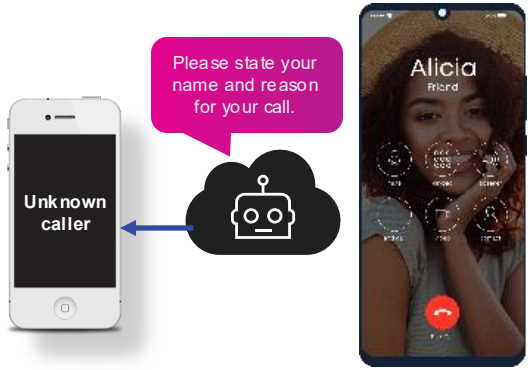
Intelligent Call Fraud Protection



Call Branding



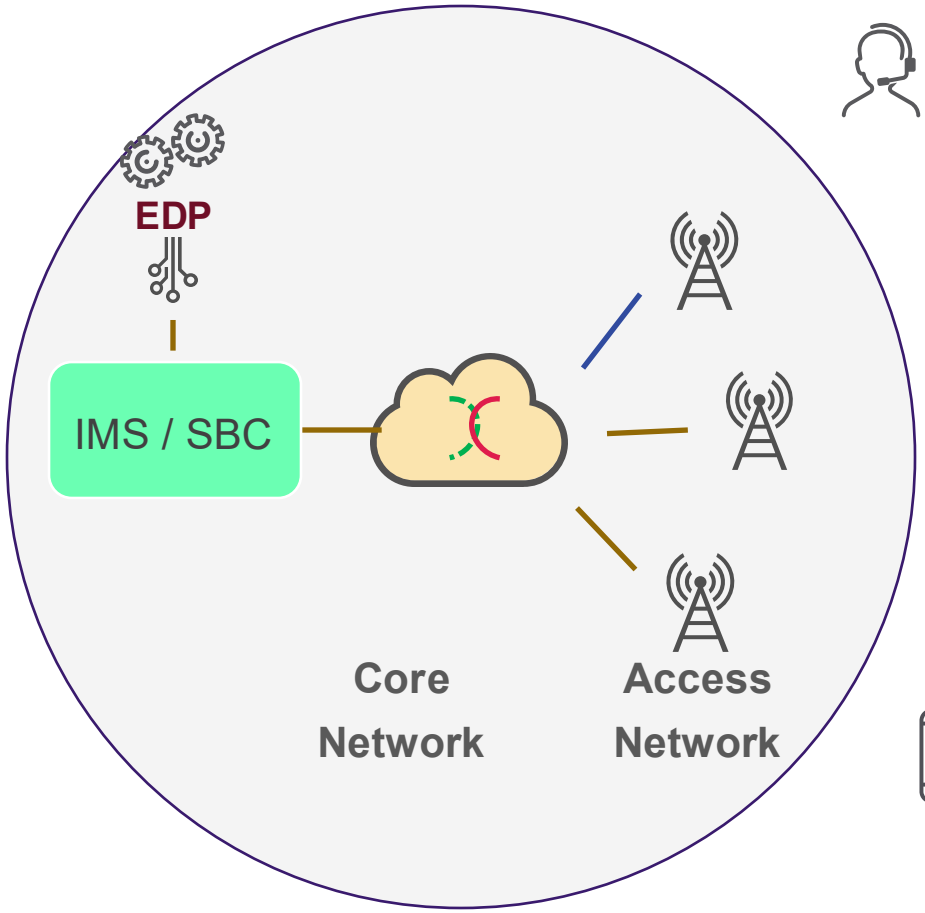
Call Screening



Alicia screens unknown caller before deciding whether to answer

Engage Digital Platform

Revenue Growth and Network Monetization by Transforming Customer Journeys



Contact Center

Enterprises

Consumers

Mobile App

Before

- ✓ Call Branding
- ✓ Call Screening

During

- ✓ Fraud Detection
- ✓ Call Recording
- ✓ Clarity
- ✓ In-Call AI Assistant
- ✓ Live Translation

After

- ✓ Call Transcription
- ✓ Call Notes & Summary

Engage Live Call Language Translation & Text Captioning

Live Phone Calls

Captioning via Video or Live link

- Real-Time and Accurate
- Support for 65+ languages
- Ease of Use through native dialer app
- Seamless integration
- Customize & white label
- Compatible with multiple communication platforms
- Flexible Hosting
- Cost-Effective

Remove Language Barriers from Live Voice & Video Conversations

Engage Fraud Detection

Recording for P2P calls from native dialler or Mobile App over CSP's 4G network

"Give me your bank account details to win 1 million!"

Call Recording is done & call transcript is sent to subscribers

Real time transcription is also fed to an AI Engine for Fraud Detection during Live calls

Engage Call Recording

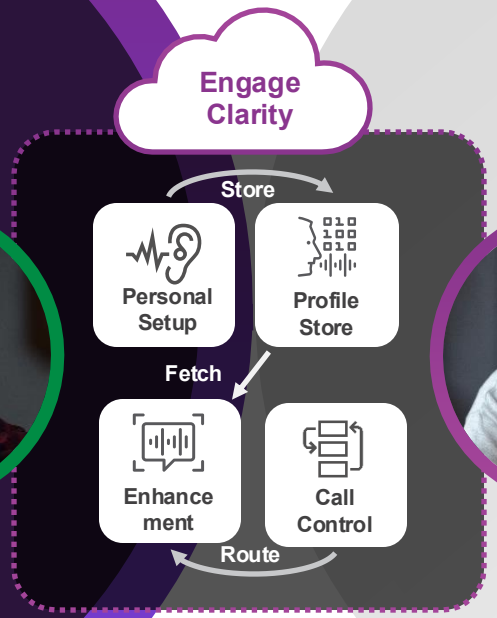
Calls are recorded for Quality Audits or compliance purposes

Recordings are posted to respective enterprises immediately after the call

Engage Clarity: A Hearing Aid in the Sky

ENGAGE CLARITY

Real-time voice call services for those with hearing loss



Radisys engageclarity

- Live call enhancement
- Personalize user profiles
- Integrated in Telephony Service Provider Network
- Large underserved market

Engage Clarity connects people; it enables them to hear again and be heard

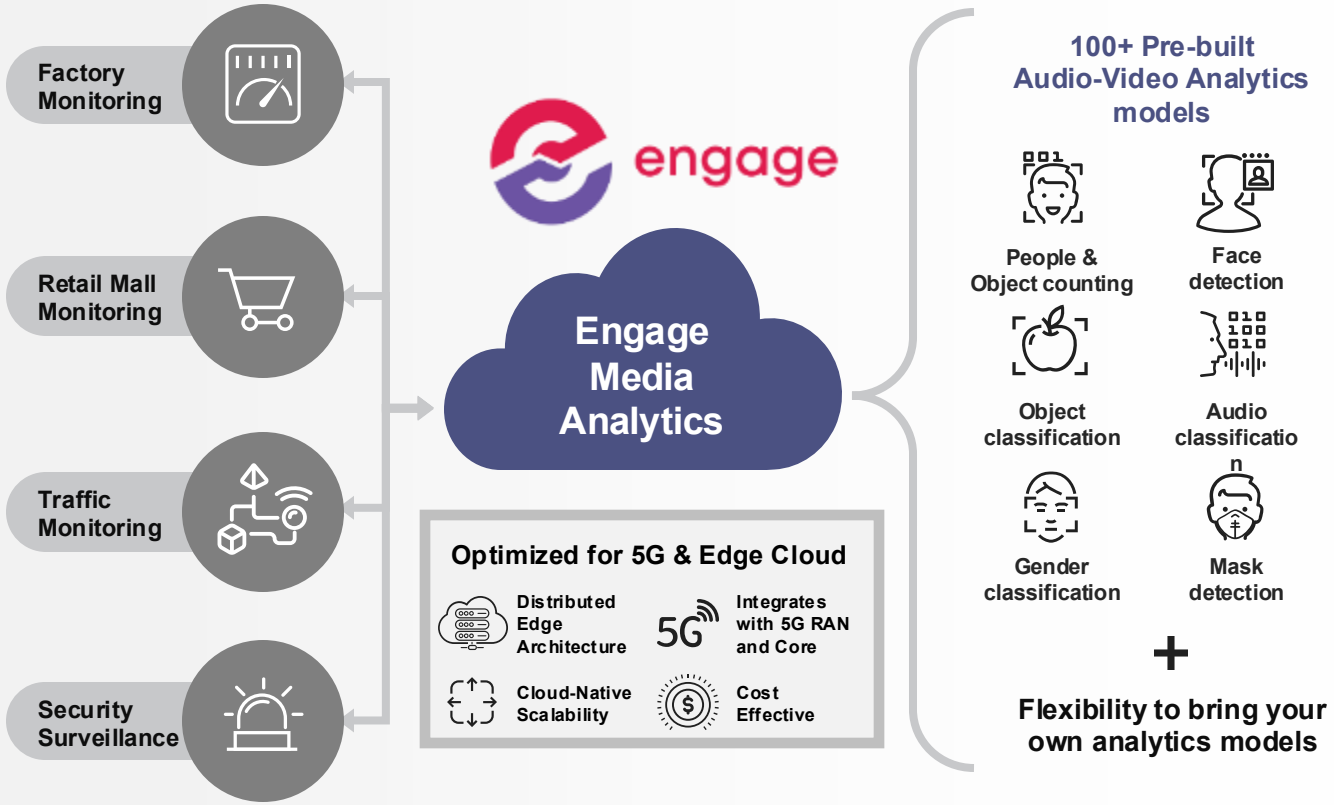
Accelerate Industry 4.0 Application Innovation

ENGAGE MEDIA ANALYTICS

Monetize 5G & Edge Cloud Investments

- Integrated Programmable Audio-Video Analytics & Communications
- Intuitive Low-Code/No-Code Visual Design Tool
- Open & Extensible Platform
- Data Privacy & Control

Programmable Computer Vision Analytics



Removes Complexities to Create and Scale Industry 4.0 Applications

Communications + Computer Vision

Vertical Specific Digital Automation Applications

Expedite Airport
or stadium entry based on Face Match

Monitoring Drive
through lines for wait times and cars leaving for revenue loss analysis

Monitoring Emotions
of people in retail shop, classroom, stadiums, public meetings

Demographic Analysis
of people (age, gender, sex) in crowded places

Notifying Concierge
when a guest in a wheelchair needs assistance

Notifying Assistant
when an elderly at-home patient has fallen from the bed

Augment Emergency
call live agent discussion by identifying critical keywords or background sounds

Detecting a Fire
in a factory, campus building and alerting emergency services personnel

Detecting a Gun Shot
in a building and immediate alert law enforcement services

Monitoring Warehouse
shelves for inventory management

Identify Shopper
traffic volume in retail aisles and send special deals/ coupons

Programmable Low-Code/No-Code Video Analytics + CPaaS = Many Killer 5G Apps

Rethink Communication Experience with AI-Powered Engagements

Radisys

ENGAGE DIGITAL ASSISTANTS

Let's add the human element to self-service automation with conversational and GenAI

- Unique automated video engagements-Just like a live video call
- Natural Conversational AI-based Customer Interactions
- Integrates with Telephony, Web, and Mobile Apps
- Automate Thousands of Interactions at a Fraction of a Cost
- Intuitive & Programmable Low Code/ No Code Visual Design Tool

engage

New Ways to *Engage* with Customers, Peers, and Family

Intelligent IVR

Conversational speech-enabled customer support

Speech-enabled e-Commerce integrated with CRM

Video Assistant

Video-based interactive conversational AI bots for brand and customer engagement

GenAI In-Call Assistant

Personal Generative AI Assistant that you can add to any phone call to get an actionable summary of calls, automate tasks, answer questions on live calls, and more

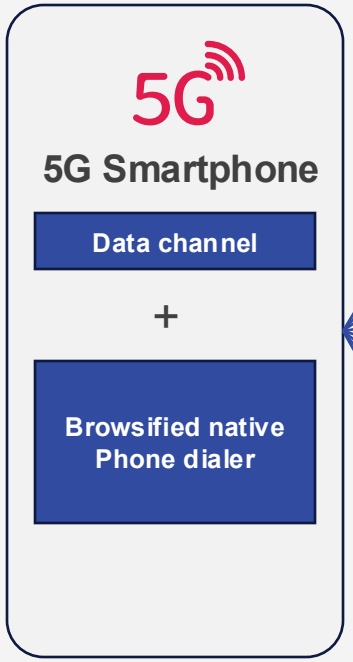
Voice & Video Enable Digital Customer Experience for Sales-Marketing-Customer Care

Engage Interactive Calling – The Future of Voice Calls

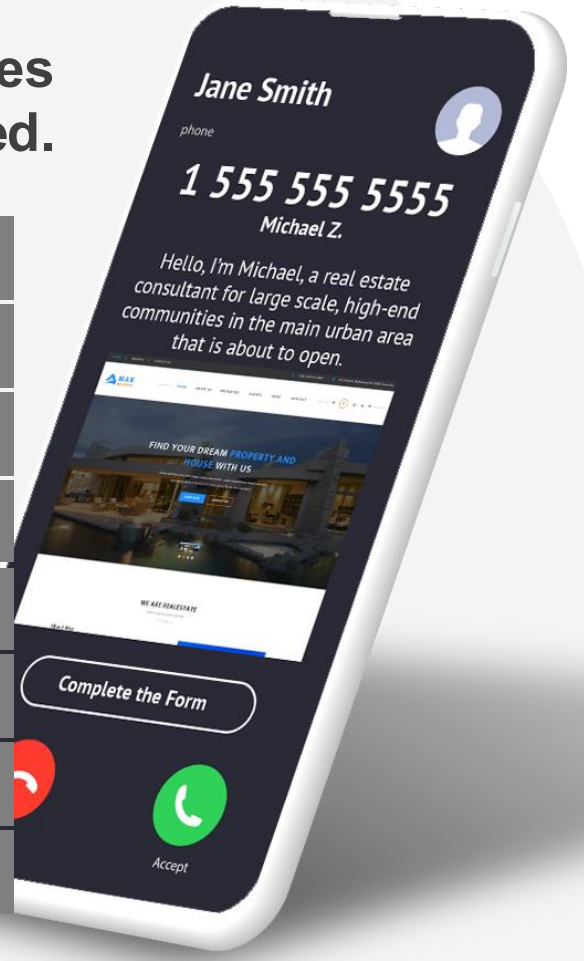
Radisys

Make 4.3 Trillion Calls Every Year the New Omni Channel for Customer Interactions

Add interactive and sharing capabilities to phone calls. No special apps needed.



- In-call screen sharing
- In-call photo album sharing
- In-call co-browsing
- In-call co-editing
- In-call document signing
- In-call AR/VR
- In-call custom menus & UI
- Any other web feature!



The Long-Desired Convergence of Internet and Telecom Worlds

Radisys Media Processing Leadership

World's #1 Media Server
with 70+% market share,
20+ years in media processing business,
and 8M+ ports deployed

Dominant VoLTE Leadership
Powering Global VoLTE deployments

Award Winning
Engage Digital Platform & Apps
for Unique Digital Experiences

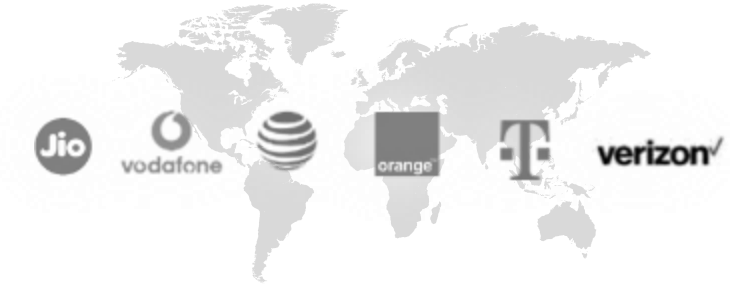
Winner of Showcase Challenge

Highly commended for best innovation

SAMSUNG ZTE中兴 NOKIA
metaswitch zoom ribbon

+ MORE

Selected partner by the
World's Best-known OEM Telecom Vendors



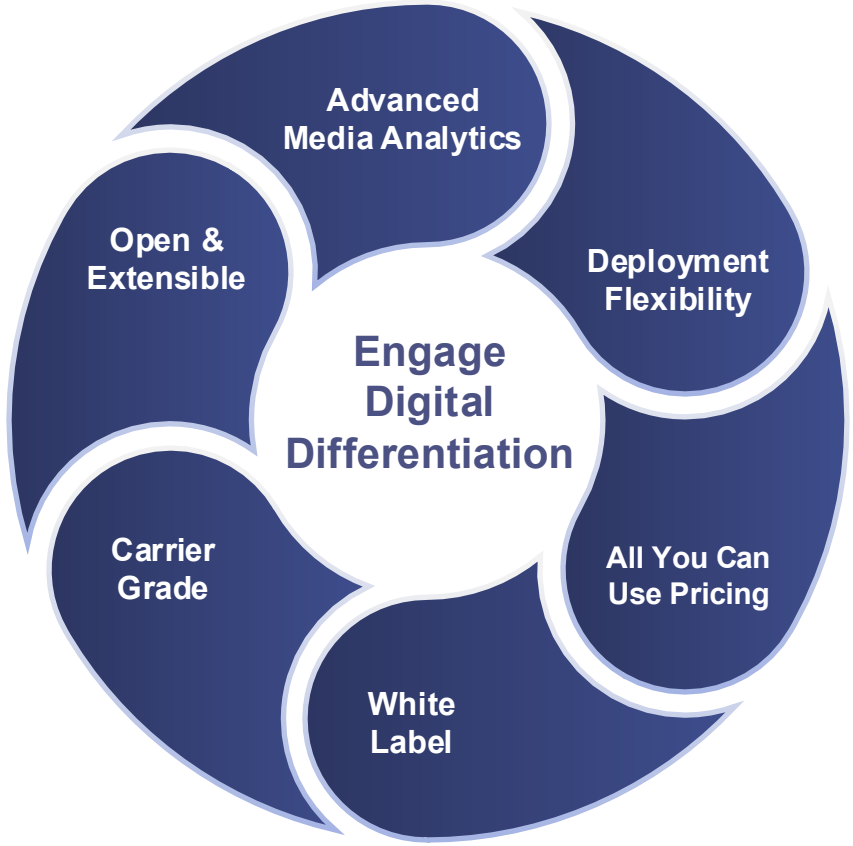
Most Widely Adopted
Touching over 1.7B Subscribers ~ 200 Operators

Enabling Service Providers to Differentiate

Monetize digital services beyond voice & messaging

Flexibility to bring your own components

In-Network, Edge & Cloud to ensure data privacy and quality of experience



Deliver on SLAs not available through public cloud-based offers

Enjoy significantly higher margins

Promote and build your brand

Accelerate Time to Market & Revenue

Media Analytics

Monetize 5G & Edge Cloud Investments with Engage Media Analytics

Radisys

- Factory Monitoring

- Retail Mall Monitoring

- Traffic Monitoring

- Security Surveillance

Engage Media Analytics

Optimized for 5G & Edge Cloud

- Distributed Edge Architecture
- Integrates with 5G RAN and Core
- Cloud-Native Scalability
- Cost Effective

100+ Pre-built Audio-Video Analytics models

- People & Object counting
- Face detection
- Object classification
- Audio classification
- Gender classification
- Mask detection

+

Flexibility to bring your own analytics models

Integrated Low-code / No-code audio analytics, computer vision, and programmable communications simplify development.

100+ Pre-Trained Models in EDP

- Age & Gender
- Facial landmarks
- Face detection – standard & enhanced
- Face re-identification
- Head position
- Human detection – eye level & high-angle detection
- Human pose estimation
- Person detection & action recognition
- Person attributes recognition crossroad
- Person re-identification – ultra small/ ultra fast
- Identify someone from different videos – standard & enhanced
- Emotion recognition
- Identify roadside objects
- Vehicle detection
- Vehicle metadata
- License plate detection: small & front facing
- Pedestrian detection
- Pedestrian & Vehicle detection
- Detect People, Vehicles & Bikes
- Advanced roadside identification
- Landmarks regression
- Single image super resolution
- Text detection
- Retail environment
- Smart classroom use cases

(based on Intel OpenVINO™ toolkit)

Expedites solution development for monetizing video content

Expedite Airport or Stadium entry based on Face Match

Automated attendance system in offices, schools, colleges, shops, etc.

Monitoring Drive through lines for wait times and cars leaving for revenue loss analysis

Monitoring emotions of people in retail shop, classroom, stadiums, public meetings

Demographic analysis of people (age, gender, sex) in crowded places

Notifying concierge when a guest in a wheelchair needs assistance

Notifying assistant when an elderly at-home patient has fallen from the bed

Augment emergency call live agent discussion by identifying critical keywords or background sounds

Detecting a fire in a factory, campus building and alerting emergency services personnel

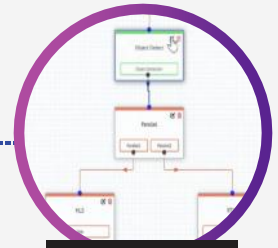
Detecting a gun shot in a building and immediate alert law enforcement services

Monitoring warehouse shelves for inventory management

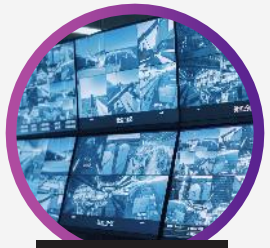
Identify frequent shoppers in retail stores and send special deals/ coupons

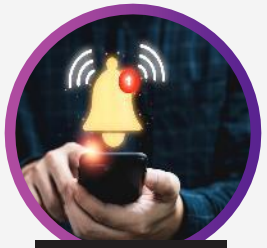
Engage Media Analytics - Fire Detection

Radisys


FLOW

CAMERAS


MONITORING


ALERTS

engagedigital.ai

Setup Remote Factory Monitoring in 5 Simple Steps

Create video analytics flow

Select Cameras

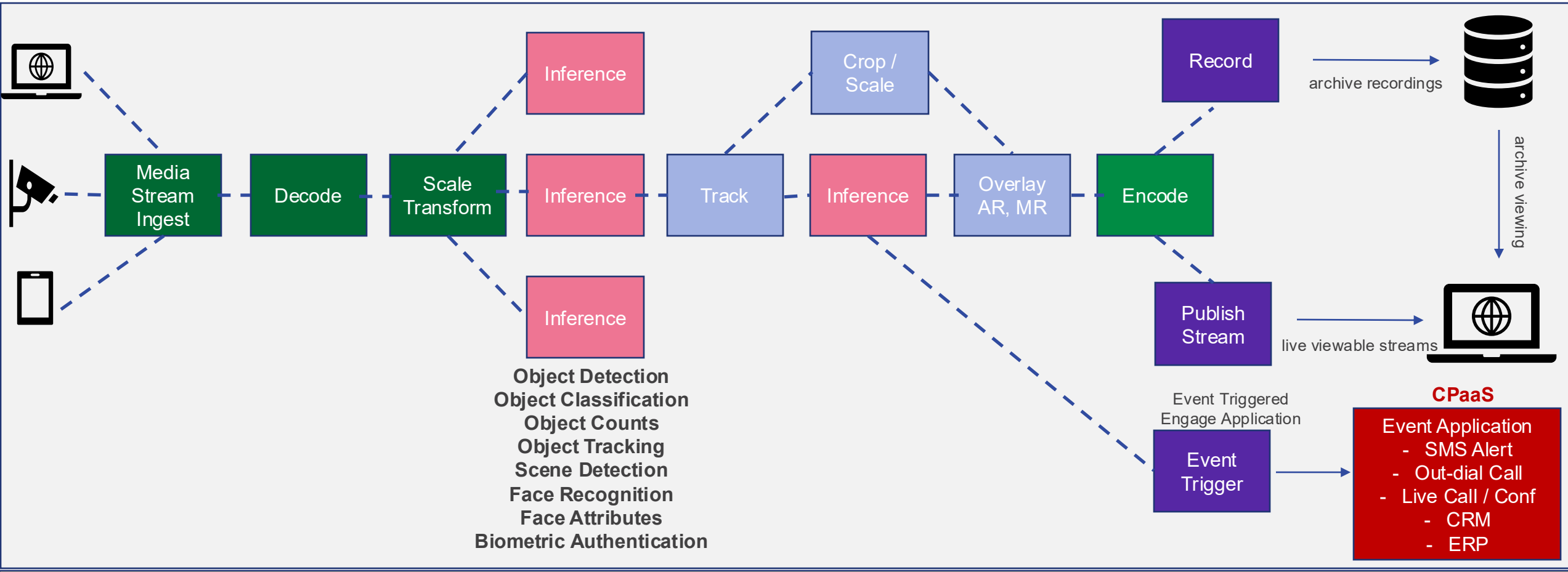
Apply analytics flow to cameras

Set up alerts

Activate monitoring

Eliminate Complexities to Implement Industry 4.0 Applications

Programmable Media Analytics (Computer Vision) Pipeline

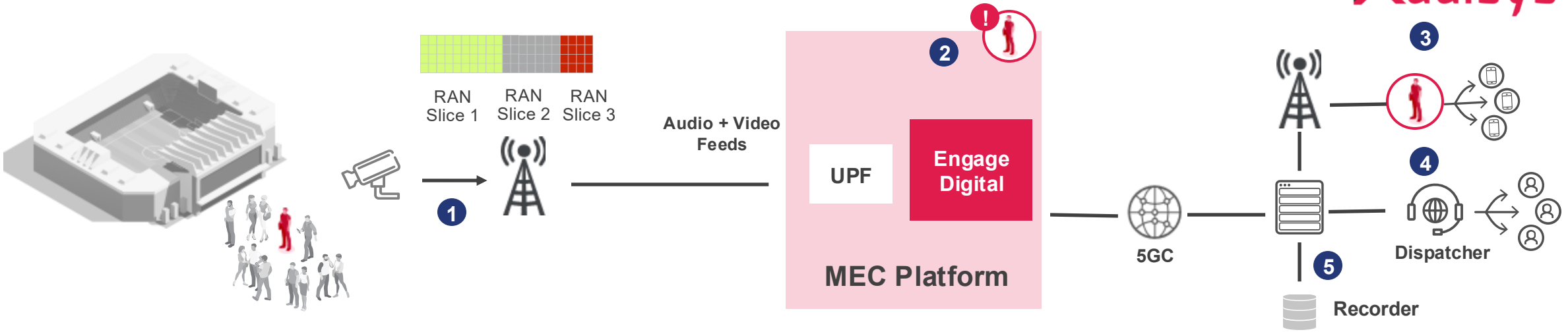


Complete Application Solution (Mobile, Web, Network)

Programmable Media Analytics Applications APIs / SDKs

Ingest / Pre-process Multiple Streams, Multiple Endpoints	Apply Multiple Inference Engines sequential/parallel (Classification / Scenes)	Post-process Video (XR) and Live Stream Publishing	Event Triggered Application Biz Logic

Use Case: Predictive Surveillance

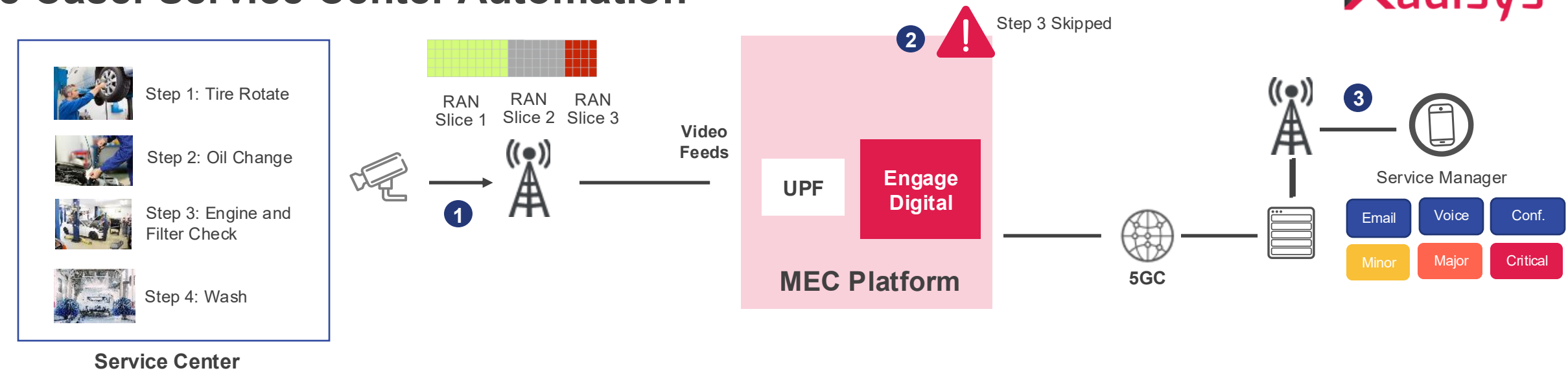


	Use Case Elements	Engage Platform Functionality & Value
1	Cameras are mounted on key locations, which are networked and connected to the processing platform	
	Cameras capture and send videos for processing	Video processing in the network lowers device CAPEX and OPEX
2	Video is processed by the application layer for suspicious actor detection	Video processing on demand lowers cost
3	Images of suspicious actor are sent to mobile devices of the on the ground security teams	Messaging services via Engage increases flex and lowers cost
4	Communication channel is established between the on the ground security team and the centralized security team	Conferencing and exchanging messages via Engage increases flexibility and lowers cost
	Images, files are exchanged	
5	The transactions are recorded for storage and post event analysis	Recording is much cheaper and secured
	Post event reports are generated and are further distributed to the larger team for communication and co-ordination	Messaging services via Engage increases flexibility and lowers cost

Enhances Security & Remote Monitoring in:

- ✓ Smart Cities
- ✓ Manufacturing Factories
- ✓ Warehouses
- ✓ Schools & Universities
- ✓ Airports
- ✓ Hospitals
- ✓ Arenas and any public spaces

Use Case: Service Center Automation

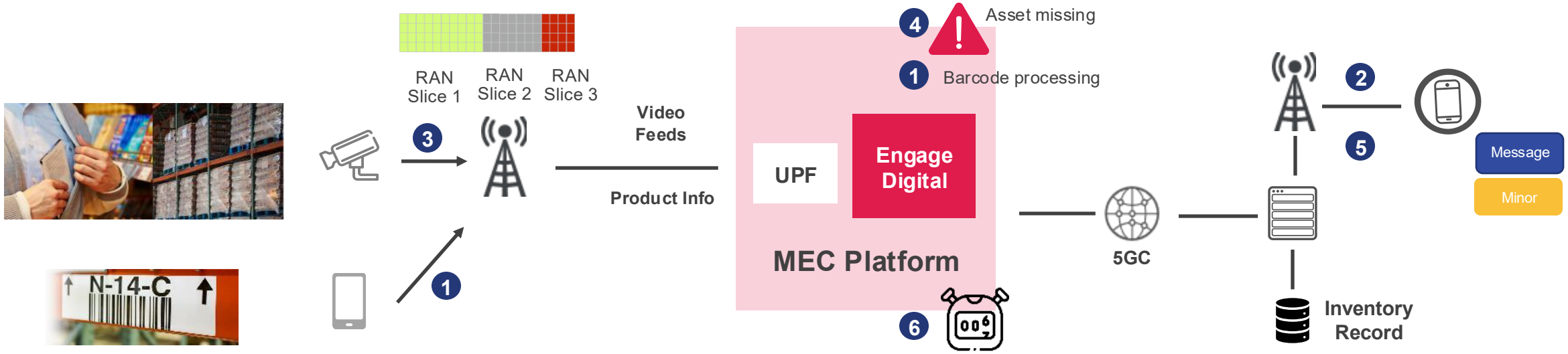


	Use Case Elements	Engage Platform Functionality & Value
1	Cameras are mounted on key locations, which are networked and connected to the processing platform	
	Cameras capture and send videos for processing	Video processing in the network lowers device CAPEX and OPEX
2	Video is processed by the application layer for checking the service steps	Video processing on demand lowers cost
3	Minor deviation from the process detected and an Email is sent to service manager	Email services via Engage increases flex and lowers manual intervention
	Major deviation from the process detected and a call is triggered between service manager and the service engineer	Audio/ Video calls via Engage increases flexibility and lowers cost
	If needed a conference call can be initiated between service engineer, service manager and customer	Conferencing via Engage increases flexibility

Automates Verification of Process Related Workflows for :

- ✓ Manufacturing quality checks
- ✓ Baggage handling at airports
- ✓ Discharging patients
- ✓ Inventory classification in warehouse

Use Case: Automated Inventory Management

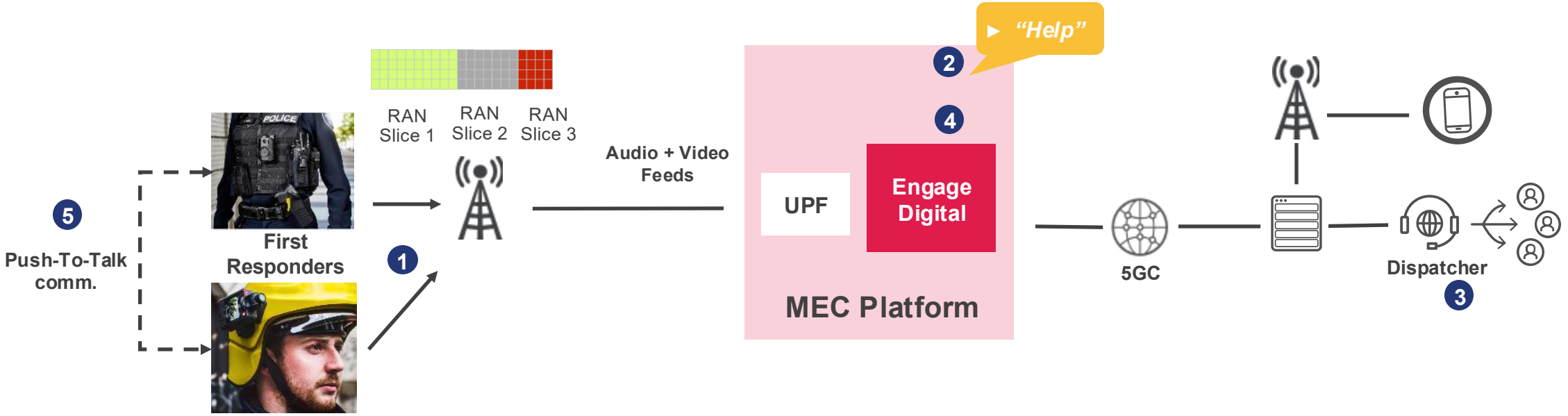


	Use Case Elements	Engage Platform Value
1	Cameras are mounted on key locations, which are networked and connected to the processing platform	
	Device captures barcode of item that is being checked out and sends to platform for processing	Low latency edge processing for real time inventory update
2	Update the inventory and message relevant stakeholder incase of high value item	Messaging services via Engage increases flex and lowers cost
3	Cameras capture and send videos for processing	Video processing in the network lowers device CAPEX and OPEX
4	Video is processed by the application layer for high value object tracking	Video processing on demand lowers cost
5	Theft detected and relevant stakeholder is called to show real time feed	Conferencing via Engage increases flex and lowers cost
6	Engage platform keeps processing the video feed continuously to keep count of the inventory	Video processing in the network lowers device CAPEX and OPEX

Helps Validate Object/ People Count:

- ✓ Tracking livestock or any inventory
- ✓ People count for compliance
- ✓ Packaging – Item count in a box
- ✓ Delivery of packages/containers (ports)
- ✓ Traffic analysis on streets and retail outlets

Use Case: First Responders Situation Analysis & Collaboration

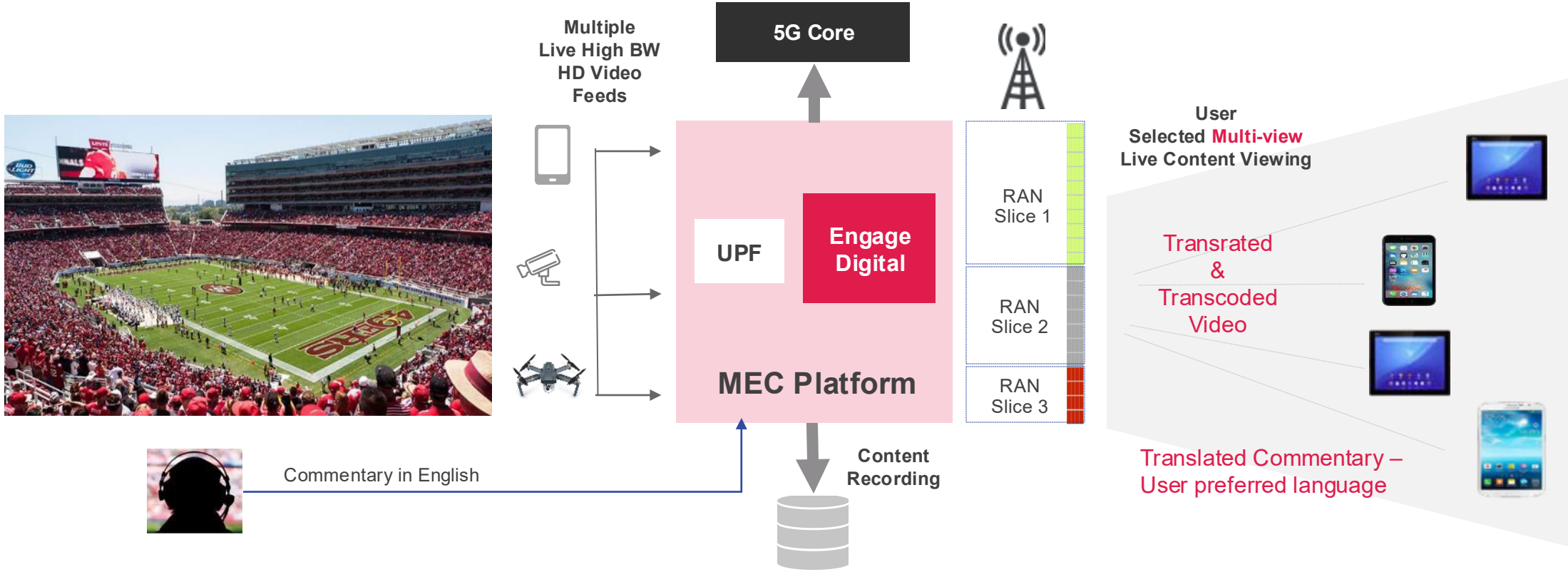


	Use Case Elements	Engage Platform Value
1	First responders have body mounted Cameras, microphones which are networked and connected to the processing platform	
	Devices capture and send audio, video feeds for processing	Video processing in the network lowers device CAPEX and OPEX
2	Audio is processed by the application layer to identify any keywords like "Help"	Audio processing on demand lowers cost
3	Communication channel is established between the on the ground team and the dispatcher team	Conferencing and exchanging messages via Engage increases flexibility and lowers cost
4	Video is processed by the application layer for situation analysis. Dispatcher team identifies the scale of event is much larger and needs to send in more team	Video processing on demand lowers cost
5	Platform enables PTT communication between first responders	PTT via engage platform adds flexibility

Handling Critical Situations:

- ✓ Fire in a building
- ✓ Gun shot in a building
- ✓ Unidentified object in public spaces
- ✓ Flooding in an area
- ✓ Help required by a patient
- ✓ Possibility of Stampede/ Riots

Use Case: Sports Arena



	Use Case	Engage Platform Value
Use Case 1	Media processing for multi-view videos	Transcoding, Trans-rating
Use Case 2	Real time translated multi-language commentary	Translating
Use Case 3	AR overlay on official pictures for social media posting	AR overlay on content (Images, Videos)
Use Case 4	AR overlay of match statistics, referee decisions etc. on arena applications	AR overlay on applications

Media processing for:

- ✓ Education content overlays
- ✓ Broadcast content overlays
- ✓ Multi-language conference

Example Business Cases

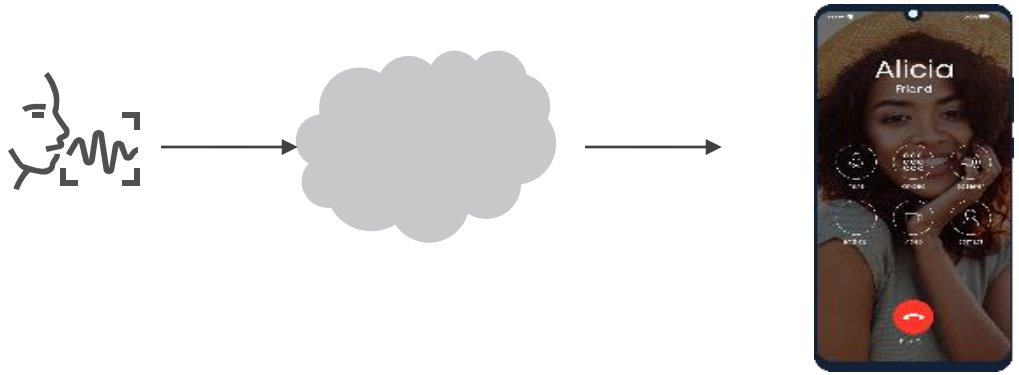
Example Business Case – Live Call Translation

- Market Opportunity
  - Call Centre Agents requiring translation capabilities
  - Business/Corporate Mobile Accounts
  - Consumer Mobile Accounts
- Business Case Assumptions
  - Subscriber monthly subscription price for the translation capability = $5
    - Each subscriber will make 6 translated calls per month
    - Average call hold time is 180 seconds
  - Datacentre server costs are estimated to be $11,500
  - Additional 3rd party costs to be covered by operator
    - hosting costs in AWS/Azure or Hardware/Software infrastructure (Hypervisor) of Datacenter
    - Data centre costs in the business case are estimated to be $11,500
    - STT and TTS and Translation costs incurred from Azure/Google Cloud and are subject to change
    - Network configuration to route call traffic to EDP system. Radisys will support remote integration and troubleshooting

Estimated Annual Revenue based on 50,000 subscribers - $3,000,000 @ 84% margin

Business Case: Call Screening

Alicia (a subscriber) receives a call she decides to screen – with call screening app activated the unknown caller is prompted to state reason for their call
Alicia can accept or reject call or ask caller for more information

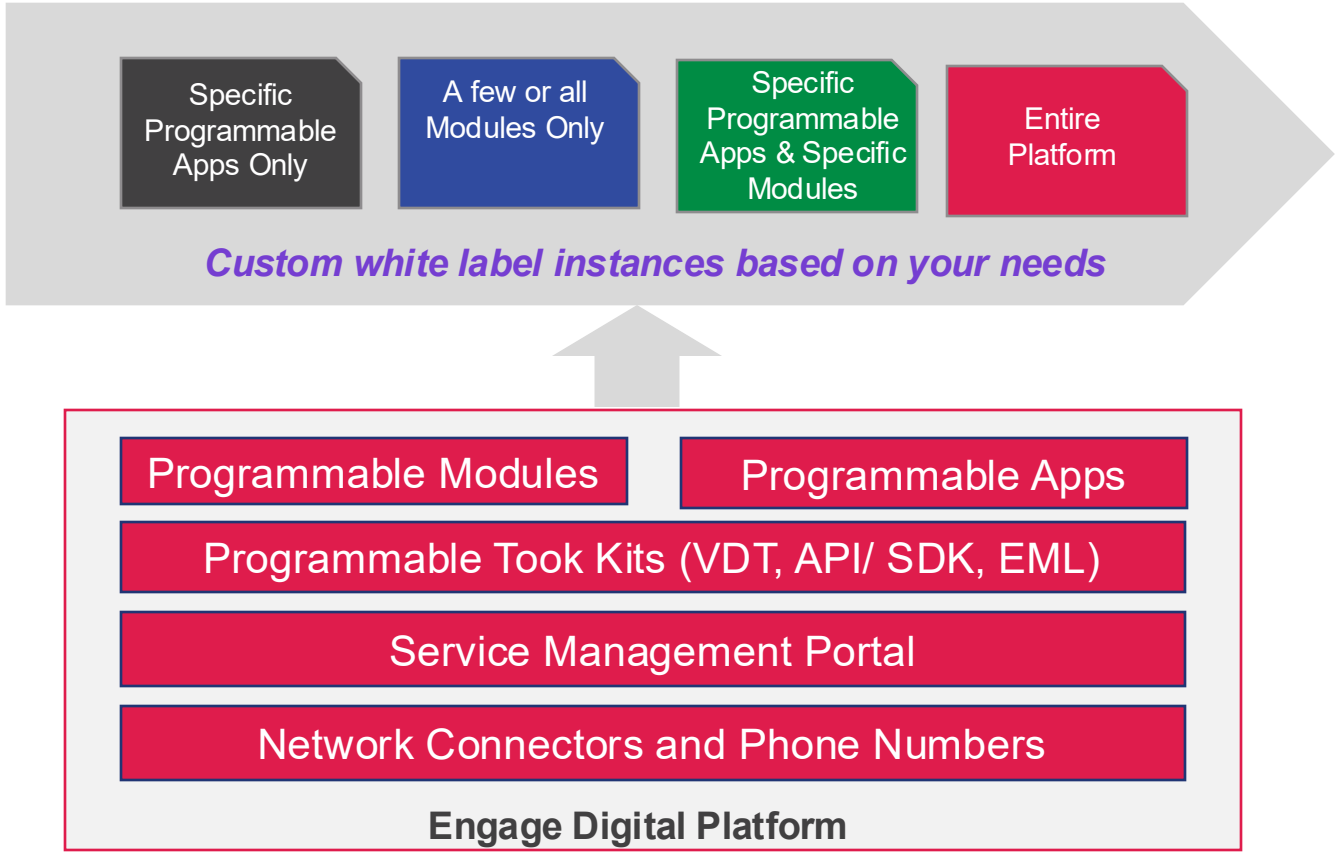


INPUTS		
Num of VoLTE subscribers with Call Screening service	6,000,000	**A**
AVG num of screened calls per day	2	**B**
% of Calls rec'd during Busy Hr.	15%	**C**
Speech Rec. Call duration (secs)	10	**D**
Num of Speech Recognition Sessions required	5,000	**[A *B*C*D/3600]**

Deployment

Customized to Your Needs

Programmable Communications and Digital Engagement Platform



Cloud instance that only includes the components required for your service.

In-Your-Network

Radisys Hosted

Multiple Deployment Options

Cloud Hosted

Cloud Based Deployment
- Global Orchestration for nearest instance service
- Carrier SMS and PSTN
- Radisys hosted EDP is available in AWS and Azure cloud

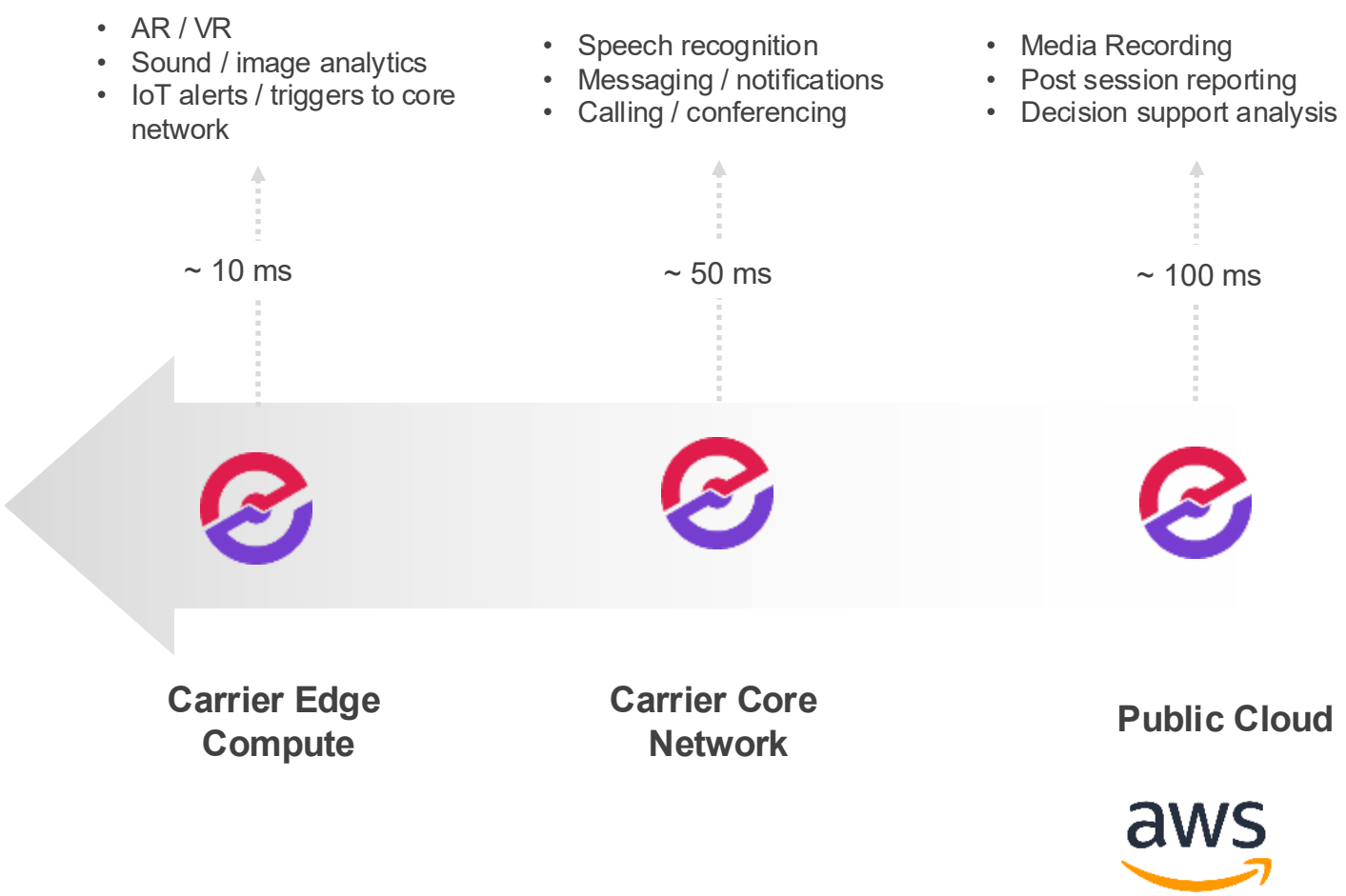
In-Your-Network

On-Premise Deployment
- Most suitable for latency sensitive applications
- QOS & SLA control
- Data and communications security

Carrier Grade Deployment in all cases
- Provides single point of protection against failures of container-pods, virtual machines or physical hardware.
- Ability to do backup/restore of the system and perform seamless upgrades
- Software can be deployed across multiple availability-zones to protect against rack or data-center failures.

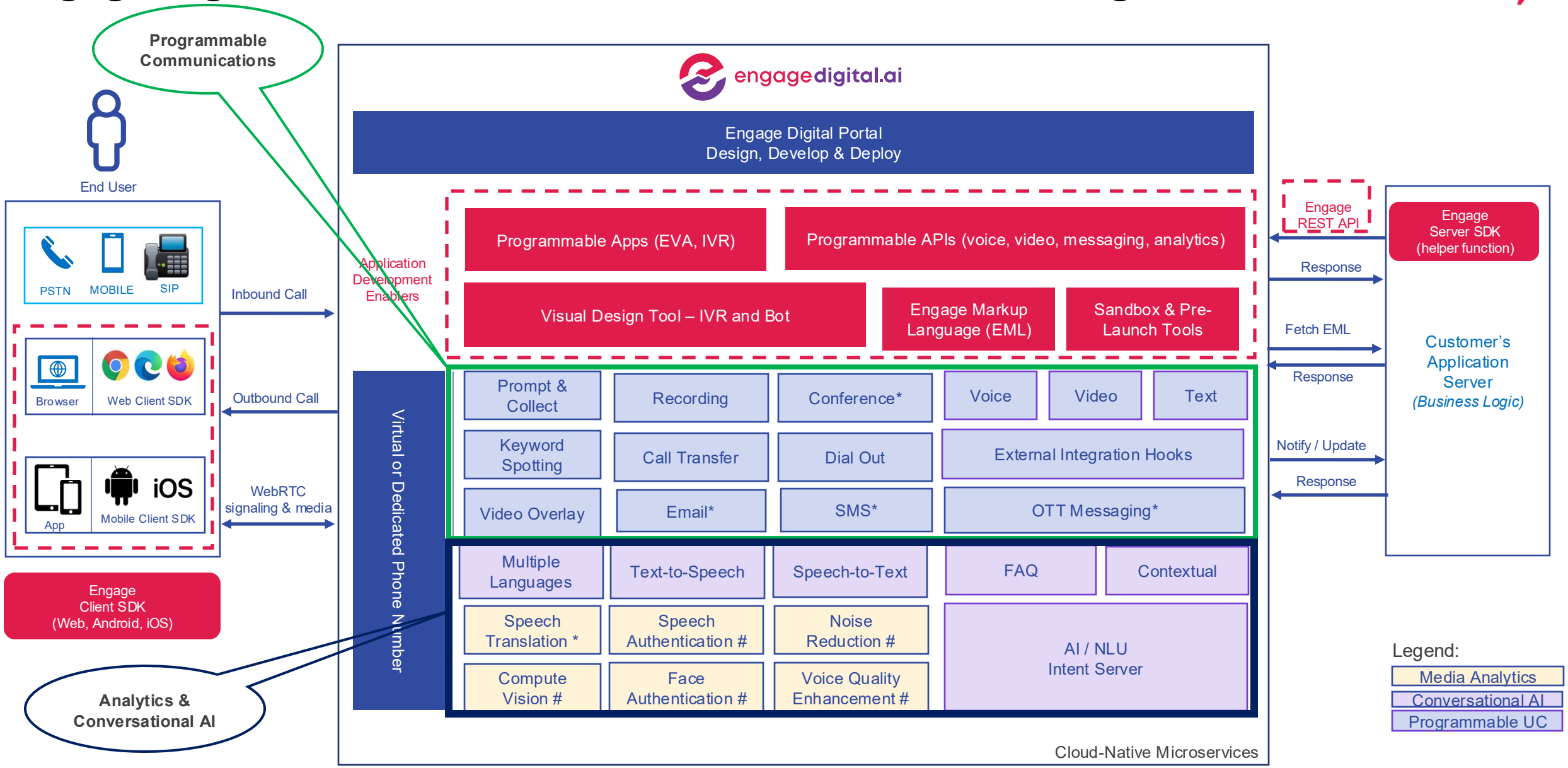
Flexible Deployment Options

Based On Application & Service Provider Performance Requirements



- Execute application in optimal location(s) based on proximity, context, QoS / latency requirements, etc.
- Backhaul savings
- Reduce public cloud processing and costs
- Enterprise level SLAs
- Regulatory compliance
- Lowest cost of service delivery
- Greater control over data and security
- Capitalizes on CSP brand

Engage Digital Platform Functional Architecture & Building Blocks



Developer Enablement

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Application / API Usage Analytics & Metrics

Dashboards, Debug Logging and Detailed Call Tracing

Dev Guides, Tutorials, Demo Videos

Reference Pre-Built Micro Applications

Reference Code Repositories

Developer Efficiency

Visual Drag and Drop Design Studio

HTTP REST APIs & Engage Markup Language

Application Server-Side SDK

Mobile / Web SDKs (WebRTC)
(Android / iOS, Browsers)

Developer Sandbox and Pre-Launch Validation Tools

Developer Enablement

Roles
Developer, Associate, Admin

Web Portal Access

Multi Tenant Services
Operator, Enterprise

EDP Core

Engage Digital Platform

Engage Differentiation

Advanced Media Analytics

- Enables wider range of applications then before possible with CPaaS: Real time IoT, immersive digital experiences, high quality interactive video

In-Network & Cloud Flexibility

- Services deployed where and when needed based on latency, privacy / security, cost and scale demands of the application with complexity hidden from developers
- Data center to Edge

Rapid Time to Market

- Simple design tools, Developer Support (build a full custom video bot with brand ambassador in 2 days)

Open – Flexibility to bring your own components

Carrier Grade

- CSPs can deliver on SLAs not available through public cloud-based offers with benefit to their customers of reliability, quality of experience and customer satisfaction (example: retention)
- CSPs can maximize monetization of their mobile and fixed broadband, edge, and private network investments

White Label

- Carriers can leverage their brand and relationship with customers and own the critical value inherent in insights from usage data to upsell services and enhance value to customers

All You Can Use Pricing

- Service providers can make more money, have more flexibility in how they price and bundle services using EDP, and make economical applications that were previously cost-prohibitive.

Radisys
Thank You