



Vodafone Business – Bringing the Incredible to Life on the Edge

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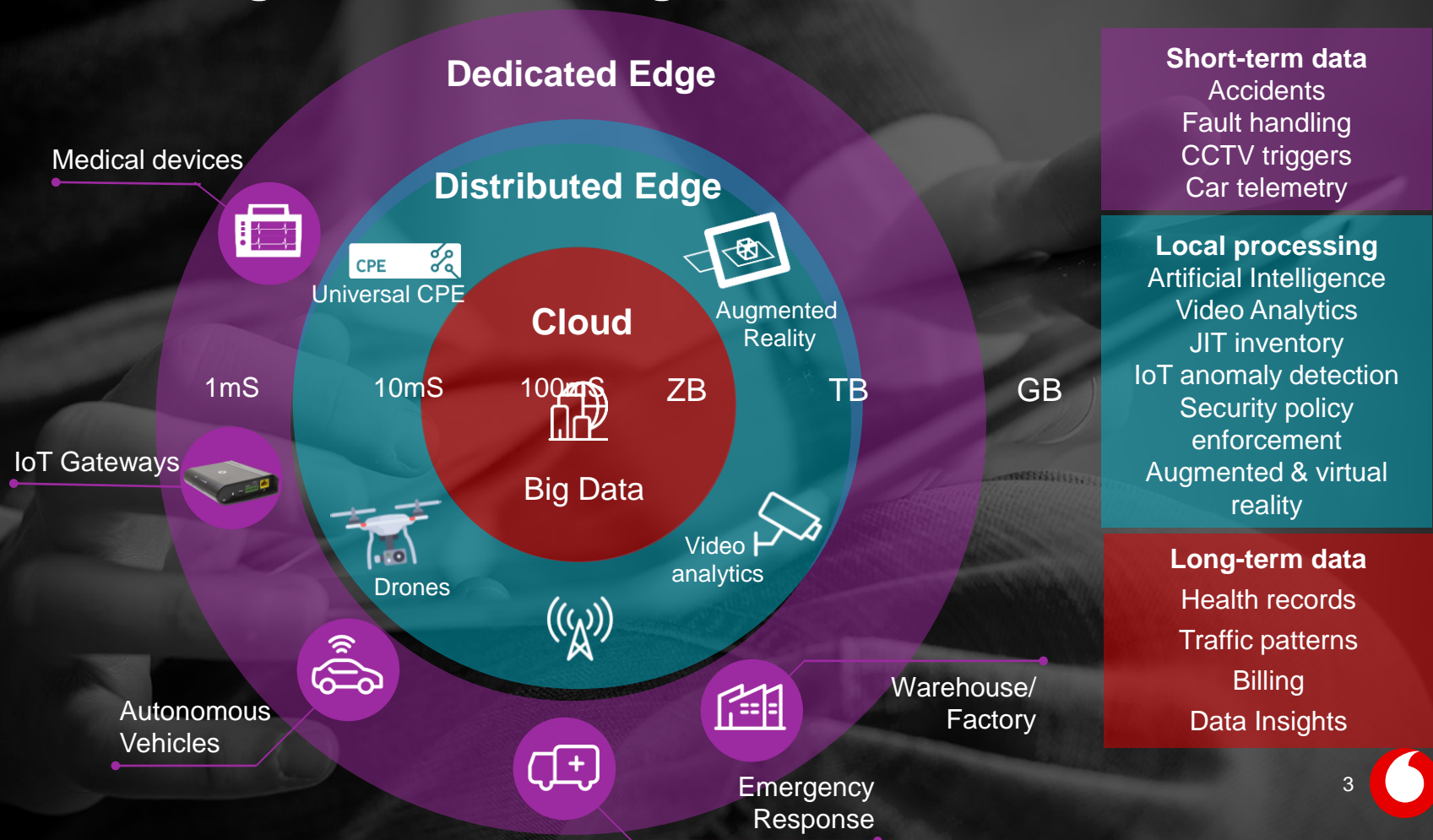
**An Introduction to MEC and our partnership
with AWS**

Case Studies

Q&A



Edge is enabling business intelligence where it is needed



Vodafone Distributed Edge Computing



Distributed MEC

Hosted infrastructure at the Edge, embedded in the wide area network (4G or 5G) and supporting multiple customers

- With the agility and flexibility of a public cloud
- Low latency and security of on premise gateways and compute
- Supports multiple customer workloads

Use cases: autonomous vehicles, AR & video analytics on the move

Combined with 5G, enables super-fast connection and super-low latency (<10ms between base station and application vs 50-100ms today)



Vodafone brings...

- Edge site locations
- 4G and 5G network
- Mobile telephony and data services
- Edge managed and professional services
- Edge solutions and low-latency applications



AWS brings...

- Access to developer ecosystem and ISVs
- Compute base services and storage
- Networking and management services
- Security services
- Support from certified AWS cloud developers



Dedrone

About Dedrone

Dedrone provides complete airspace security for organisations to protect critical infrastructure against unwanted drone activity.



What if you could see everything when you can't be everywhere?

Challenge

Delivering the Dedrone platform in sites of national importance, such as airports or ports, which often had minimal or legacy network infrastructure, and lacked high-speed network access.

Using Distributed Edge

- Enables connectivity where it's difficult to connect physically.
- Allows sensors to be installed without extensive cabling.
- Helps deliver automated alerts and instant analytics.
- With AWS cloud ensures alerts can be delivered faster.
- Enables agile, multi-site deployments.

Benefits

Dedrone can detect, classify and locate drones in real time and empower customers with vital security alerts, so they can respond in milliseconds to unauthorised drone interference.



Unleash live

About Unleash live

Unleash live, a video analytics solution provider, offers a cloud-based platform that repurposes existing camera installations and connects them to real-time AI analytics solutions at the edge.



What if you could see
everything happening
along the tracks?

Challenge

If they can't accurately monitor crowd patterns in real time, transport operators will find it difficult to get the balance right between health & safety, costs and quality customer service.

Using Distributed Edge

- Real-time insights can be gathered at Vodafone's 5G network edge, which can include live streaming from cameras at ticket gates for entry and exit, and face mask detection and social distancing monitoring.
- The platform can also run and refine an anonymised passenger counting algorithm, and automate a data push to transport servers, while saving resources because it is executed at an ultra-local level.

Benefits


Using Distributed Edge, Unleash live can provide real-time insights to transport network personnel, analysing data at the network edge to provide instant guidance. Ultimately, this means transport networks can offer safer, more reliable journeys that passengers feel comfortable making.



Groopview

About Groopview

Groopview is a collaborative social viewing platform fusing social media and TV, letting friends and families watch and react to content together, while apart.



What if you could
bring people together
when they're apart?

Challenge

Video content is sensitive to any latency and lag, needing high bandwidth to work. Any buffering and delays to the streamed video content, and resulting community "chat", within the Groopview app would seriously erode the customer experience.

Using Distributed Edge

- Delivers perfectly synchronised video to multiple users' devices at the same time.
- As video is delivered to the end-user device from the network edge, any internet holdups are bypassed. So, social engagement and reactions all take place in real time, bringing the communal experience to life.

Benefits

Distributed Edge gives Groopview the combined technologies it needs to enrich and socialise viewing experiences and bring those that are far apart, closer together.



Digital Barriers

About Digital Barriers

Digital Barriers gives real-time situational awareness to emergency services so they can make critical decisions faster than ever, keeping their teams and the public safe.



What if you could keep people safe when they head into danger?

Challenge

For emergency services, every second counts. But transmitting and analysing data live from a scene required deploying technology which could be timely, not to mention costly.

Using Distributed Edge

- Combines live video streams from multiple locations, including bodycams.
- Processes data at the edge to reduce disruption and save time.
- Gives a multi-dimensional view of the situation.
- Controls costs without compromising analytics.

Benefits

Digital Barriers is helping emergency services to make better decisions and save lives. First responders gain insights faster, hospitals better prepare for patients and control rooms can better allocate resources.

HERE Technologies

About HERE Technologies

HERE's location platform predicts hazards on the road and warns drivers before anything has even happened. It means vehicles can detect obstacles ahead, sending out targeted messages to other road users to warn them, resulting in safer roads.



What if you could
see hazards before
they appear?

Challenge

Uploading information to a central cloud for analysis and then sending insights back to vehicles wouldn't

be fast enough - vehicles, especially automated ones, need to be connected constantly and analysing data in real-time.

Using Distributed Edge

- Connects vehicles with what's happening around them in real time.
- Analyses information and anticipates hazards before they occur.
- Delivers actionable insight to drivers and vehicles.
- Enables automated systems to react in real time.

Benefits

HERE can help customers operate faster and more efficient fleets while keeping their drivers safer. Empowered by Distributed Edge Computing, HERE will be at the forefront of what's to come, leading the way to a more autonomous and safer world.





Thank you

