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Smart Media/City: Cloud-Edge-IoT solutions for modern-day Media.

NEMO

Next Generation Meta Operating System

European Union's Horizon Europe Framework Programme under Grant Agreement No. 101070118

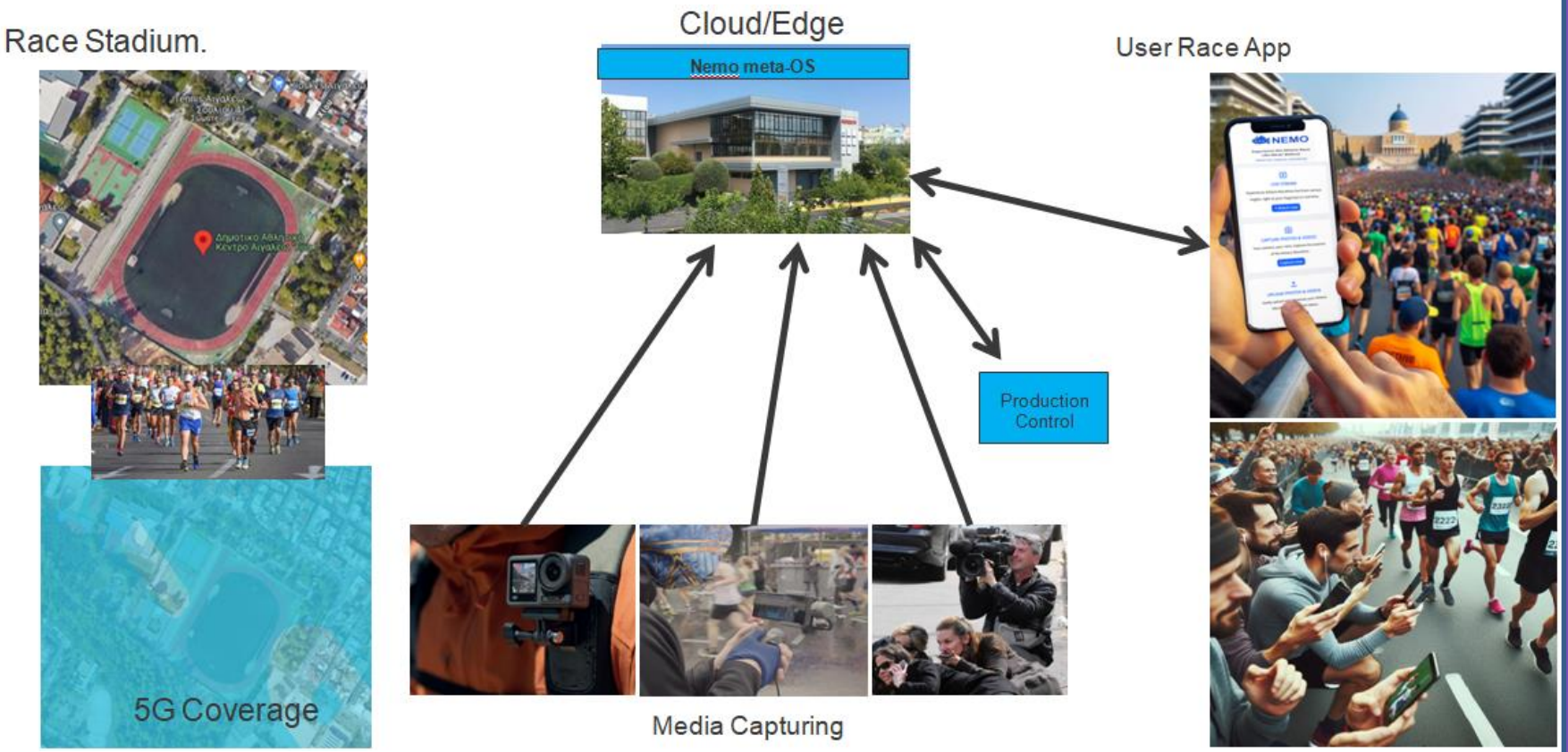
The Challenge

- Cloud-Edge-IoT (CEI) solutions for media and entertainment.

- Showcase Solutions
  - Enhance spectator experience for Urban city marathons
  - Enhance Virtual Reality experiences

Smart Media City – Pilot Location

Smart Media City



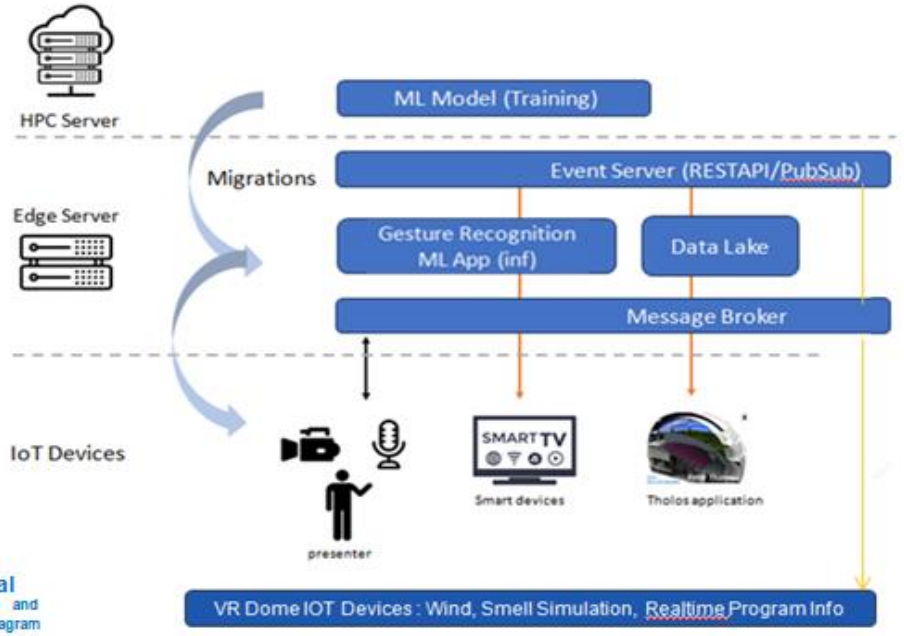
Smart Media/City solution For Live Running Events

- Video feeds from multiple sources
- AI/ML processing for recognizing runners and landmarks
- New Annotated streams with Runner IDs, Landmarks, GPS
- Viewer smartphone app to view-interact be informed.

Smart Media XR – Pilot Location

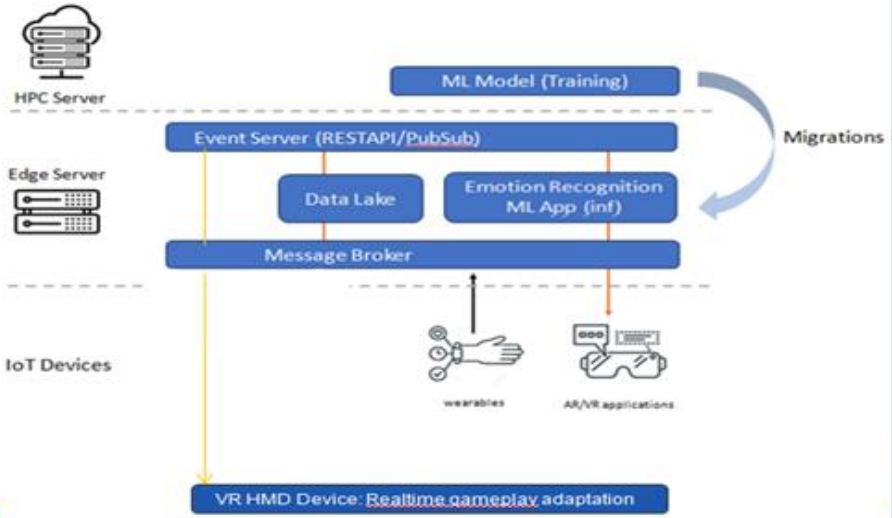
Smart Media XR

VR Dome



XR Trial
Architecture and Data Flow Diagram

VR HMD



Smart Media XR solution
For Virtual Reality Systems

- Emotion Recognition for Head Mounted Displays
  - Capture Biometric Data
  - AI/ML model for Emotion Recognition
- Gesture Recognition for VR Dome Theatres
  - Capture Presenter Video
  - AI/ML model for Gesture Recognition
- Adaptive Experiences
- Enhanced Monitoring

Risks

- Computing and network resources
- High network and video latency
- Synchronization of media
- QoE optimization
- Privacy and security concerns

Nemo cloud meta-OS mitigates risks

- Resource management and Migration
- Scalable AI/ML nodes
- Advanced network management
- Cyberscecure, Safe Execution Environment
- Privacy and Data Protection
- Small IoT devices Locally

Smart Media City
Effective broadcast, analysis solution for media oriented businesses

Smart Media XR
Effective solution for enhancing public VR systems

- Validate CEI meta-OS from citizen viewpoint for Life events
- Personalized Content Delivery solution with tailored content based on AI-driven recommendation/information
- Enhanced user engagement
- Energy-aware service orchestration

https://meta-os.eu/