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Event Sponsor :





5G and Cloud XR - Accelerates Digital Transformation

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VISUAL EXPERIENCE REQUIREMENTS ARE CHANGING



5G AND EDGE TECHNOLOGIES ENHANCE VISUAL EXPERIENCES

AR-VR TRANSFORMATION WITHIN NETWORK

AR/VR - TODAY



- Stationary
- Computer Simulated
- Physically Connected Headset

- Technology Limitations
 - Low Network Capacity
 - Low Bandwidth
 - High Latency

AR/VR - TOMORROW

- AR Market : \$114B
- VR Market : \$65B¹

HIGH BANDWIDTH



Streaming AR/VR content to Vehicles

HIGH CAPACITY



Live sports streaming utilizing VR for truly immersive experience for multiple fans

LOW LATENCY



Increasing complexity in remote devices

NETWORK CHALLENGES



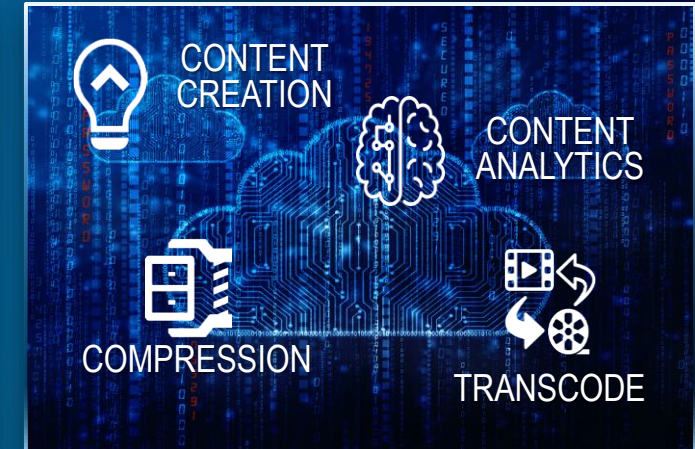
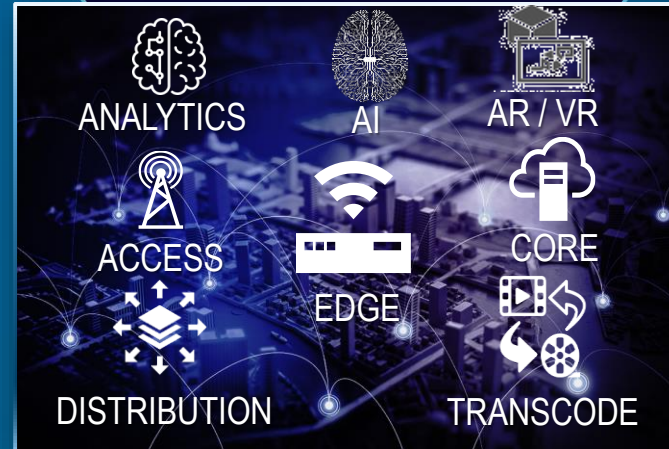
- Interactions of Many-to-Many users on different Carriers
- Maximum Threshold
- Latency Neutrality
- Connect Anywhere
- Mobile Ease of Adoption
- Dimensioning
 - Offload Client to the Edge
 - Bringing cloud closer to user

AGILE E2E INFRASTRUCTURE – FOSTERS SCALABILITY AND SERVICE INNOVATION


DEVICE


NETWORK


CLOUD DATA CENTERS





2020 :


AVG. INTERNET USER
1.5 GB
OF TRAFFIC / DAY


AUTONOMOUS VEHICLES
4 TB
OF DATA/DAY


CONNECTED AIRPLANE
5 TB
OF DATA/DAY


SMART FACTORY
1 PB
OF DATA/DAY


CLOUD VIDEO PROVIDERS
750 PB
OF VIDEO/DAY

INTEL 5G END-TO-END APPROACH

INTEL® ARCHITECTURE, FPGAs, SOFTWARE, SECURITY, AI



SCALABLE & FLEXIBLE TECHNOLOGIES AND OPEN SOURCE



Intel® Processors & SoCs



Intel® KBL-G



Intel® FPGA



Intel® QuickAssist Technology



Intel® Ethernet Adapter



Intel® Silicon Photonics



Intel® 4G/5G Modem



ONAP
OPEN NETWORK AUTOMATION PLATFORM



OPEN DAYLIGHT



openNESS
OPEN NETWORK EDGE SERVICES SOFTWARE



OpenVINO™

MEDIA AND EDGE/CLOUD GAMING – SHOWCASING @ INTEL BOOTH

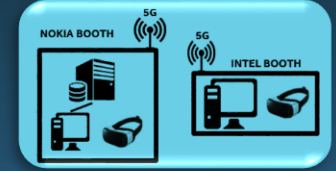
SCARECROW VS. BATMAN



Technology:

- AR Over 5G
- Compute at the Edge / Cloud
- Latency < 12ms
- E2E Platform from Content Creation, Delivery to Consumption

SPIDERMAN HOMECOMING 2



Technology:

- Multi-Player, Multi-Booth VR over 5G
- Spiderman suit in a fully immersive manner
- Intel Core and Graphics (KBL-G)
- Rendering at the Edge



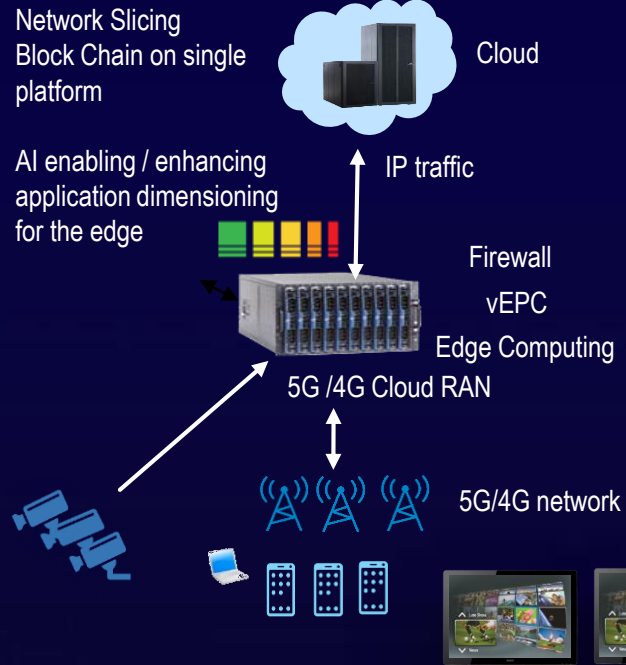
SMART VENUES

Massive Connectivity demanding capacity
Vchat/Multi-Angle viewing

Game Data Acquisition and Analysis

Edge Server reduced latency of live video chat from ~30s to ~0.5s

Retail and recommendation opportunities
Operational and Entertainment services



TRIAL DEPLOYMENT



Adaptive Transcoding



AR/VR Edge for devices/suites



360 VR live broadcasting/replay



Live Video Chat



Gaming



Tracking



Retail, Recommendations Services



Video Security Surveillance (DSS)



Hologram



Crowd Management



Facility Management



CDN Edge for events/Inference

RETAIL DIGITIZATION

BENEFITS : ADDITIONAL PRIVACY, LOW LATENCY, QOE, CONTROL OF LOCAL CONTENT, HIGHER EFFICIENCIES, WORKLOAD CONSOLIDATION



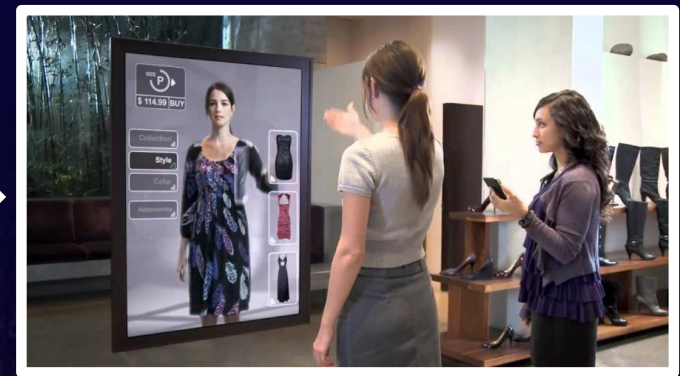
MEC PLATFORM



TODAY



TOMORROW



Supporting Applications:

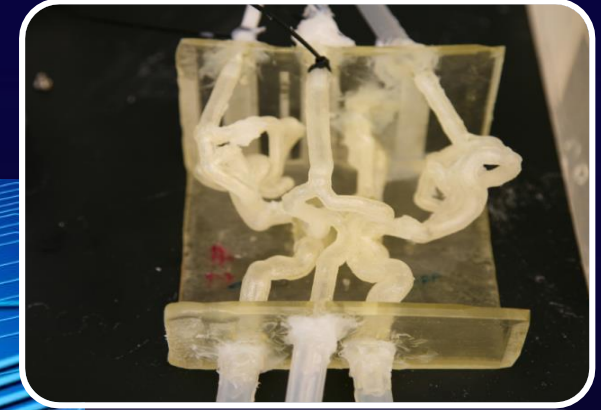
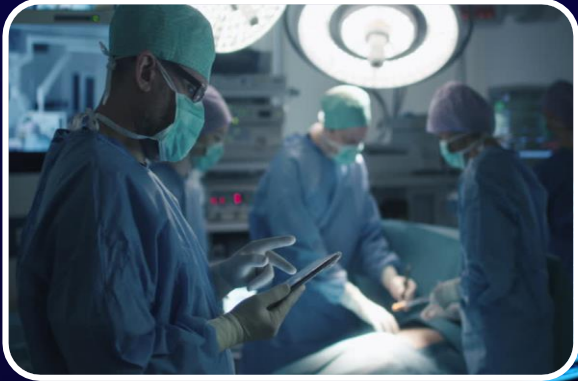


HEALTHCARE

REMOTE ADVISE



AR SURGERY



REMOTE BROADCAST



3D PRINT SURGERY

REAL-TIME DIAGNOSIS



VR SURGERY

REMOTE SURGERY

REMOTE LIVE EDUCATION

INDUSTRIAL PRIVATE NETWORK



MANUFACTURING MOVES COMPUTE & ANALYSIS TO THE EDGE WITH AI, BLOCKCHAIN, ...



 Metrology

 Mobile Robotics

 MOM Tablets

 Enterprise Security Framework Extended

AR Repair & Assembly

 Security AI

 Tool Tracking

FAN EXPERIENCE



THE NEXT GENERATION OF INTELLIGENT NETWORKS ARE HERE



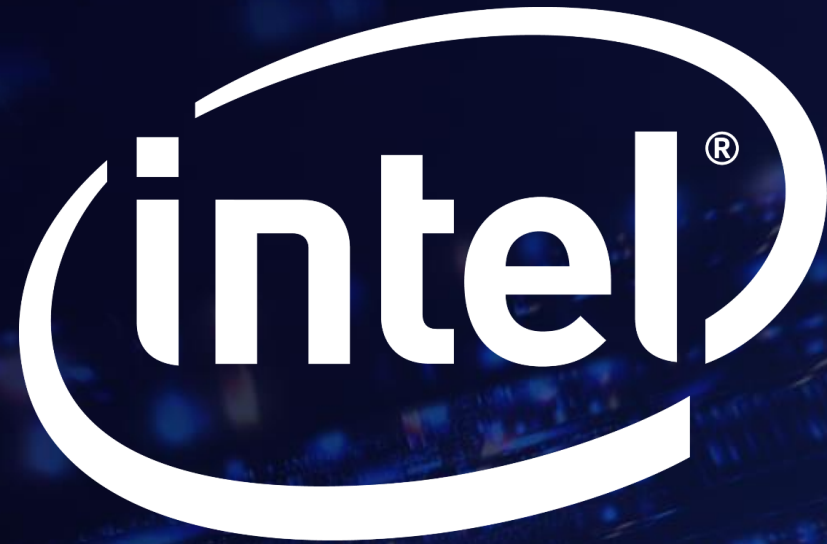
FULLY VIRTUALIZED END TO END

CLOUD NATIVE MOBILE NETWORK RUNNING

100%

ON INTEL ARCHITECTURE





THANK YOU!