



**IBC Accelerator Media Innovation
Programme 2021**

**5G & Innovation in Live Workflows
IBC Digital Showcase**

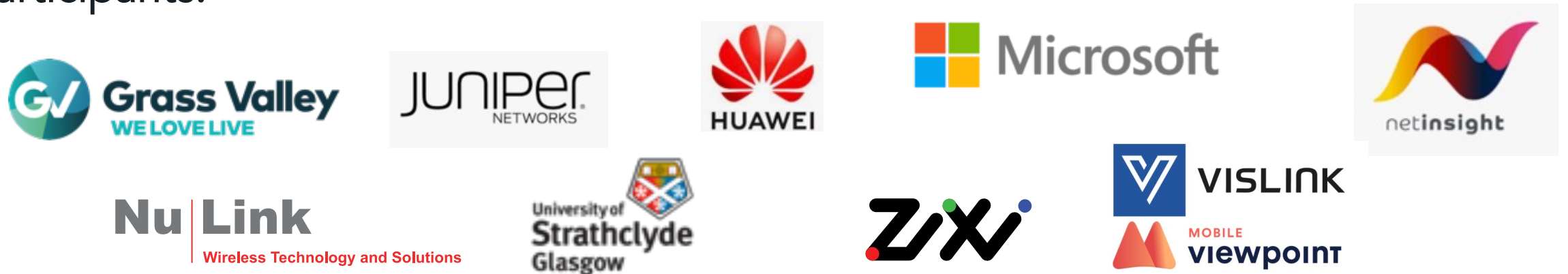
5G & Innovation in Live Workflows



Champions:



Participants:



Last Year we gave you a show.....



This year we wanted to look at workflows



LEO SAT

5G in a Box/ Private Networks



Multi-Access Edge Computing
Multiple Cloud deployments





An open workflow where you can connect from anywhere and run your production processes how you want and where you want.....

*** Key Interdependencies:**

3GPP, EBU, 5G MAG, SMPTE, AMWA, (all looking at IP and connectivity workflows)



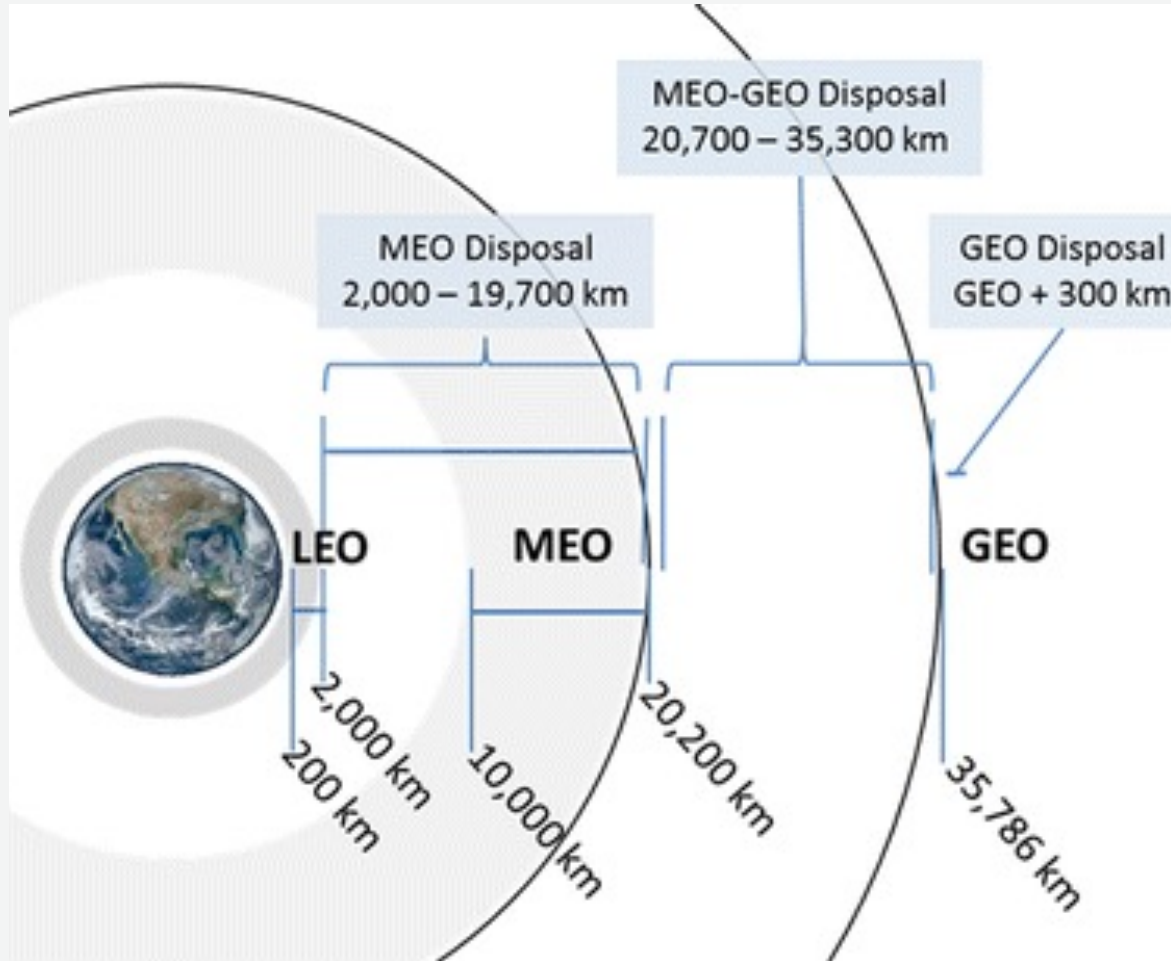
5G PRIVATE NETWORKS WORKSTREAM

See Moto GP Video Asset



LOW EARTH ORBIT SATELLITE WORKSTREAM

What is LEO?

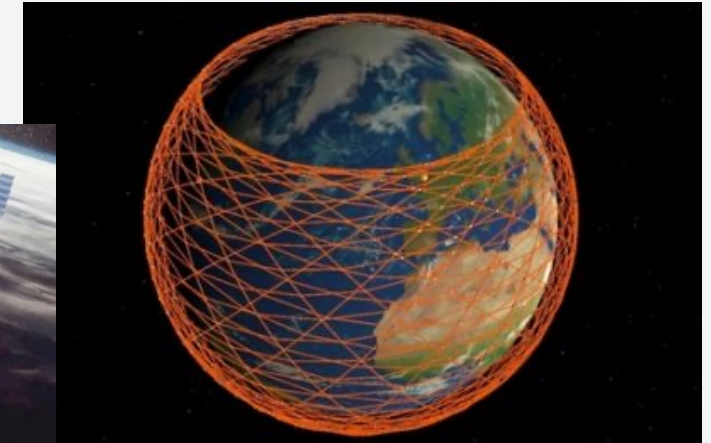
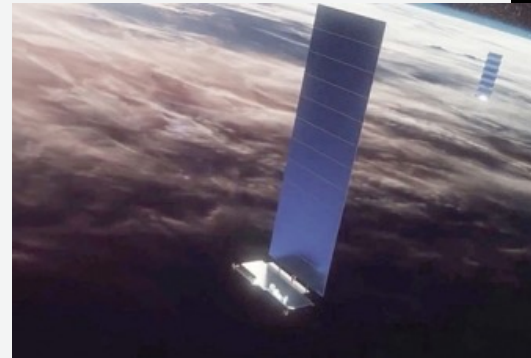


- Provide service over uncovered or underserved geographical areas
- Benefits promised by NTN's are wide-area coverage, scalability, service continuity and availability
- NTN standards set - 3GPP

SpaceX & Starlink



- 12,000 in orbit by 2026
- BBC, TV2 small scale trials
- 5G integration



FAST
Your Internet speed is
230 Mbps

Latency		Upload
Unloaded	Loaded	Speed
17 ms	77 ms	4.9 Mbps

Client London, GB 176.116.124.0 Server(s) London, GB | Slough, GB

Settings 130MB 20MB

2021-06-29 10:49

Starlink Order Confirmed

STARLINK

Order Confirmed

x1 x2 x1 x1 x1



CLOUD & EDGE WORKSTREAM

MEC & HYBRID CLOUD – WHY?



“More advanced” media production workflows demand

High ingress Bandwidth

- Cost
- Availability

Minimal Latency



OBJECTIVES (1/2)

Market Status (MEC & HYBRID) - Broadcasting Context

- Flexibility
- Scalability
- Cost effectiveness / Business Models
- Deployment Strategies
 - Hybrid vs Public vs Edge
 - Disaster Recovery vs Main Workflows

OBJECTIVES (2/2)



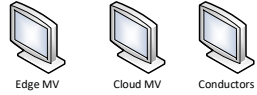
Broadcasters' Requirements

- Networking
- Cloud architectures
- Resources dimensioning

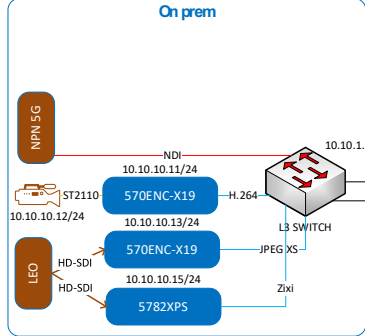


IBC Accelerator Stand / online

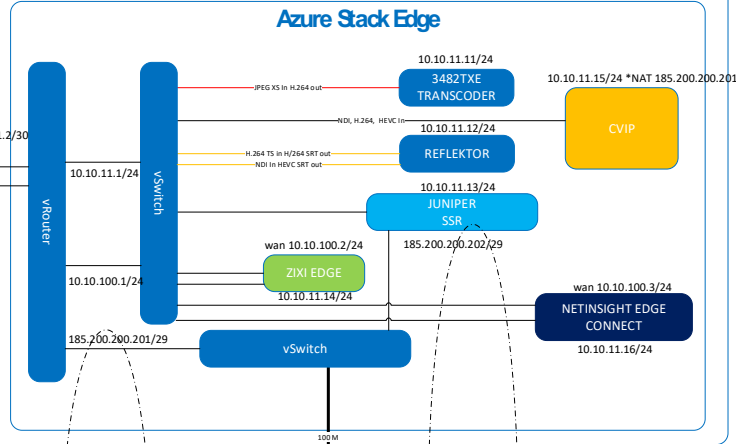
SHOW AREA (WiFi)



On prem

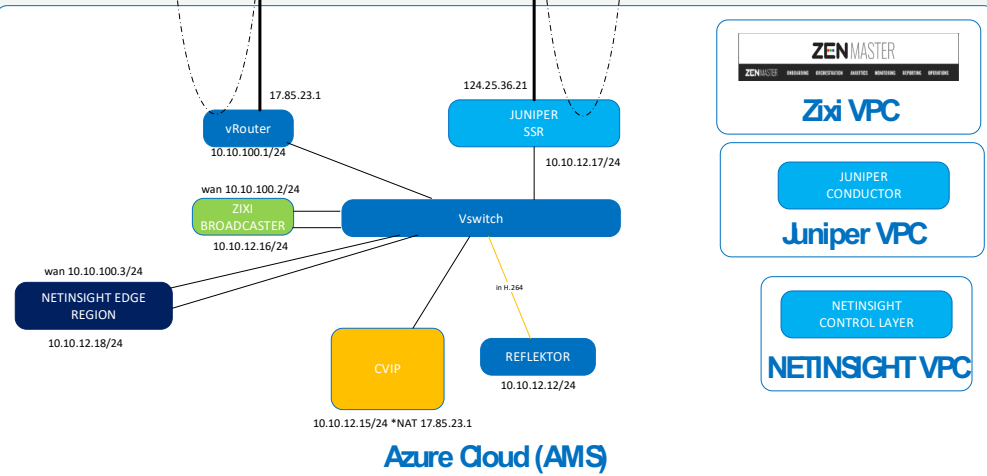
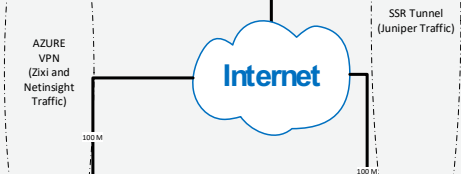


Azure Stack Edge



DEMO SETUP -
ED

Internet



ZENMASTER
ZENI... ZENI... ZENI... ZENI... ZENI... ZENI... ZENI... ZENI... ZENI... ZENI...

Zixi VPC

JUNIPER CONDUCTOR

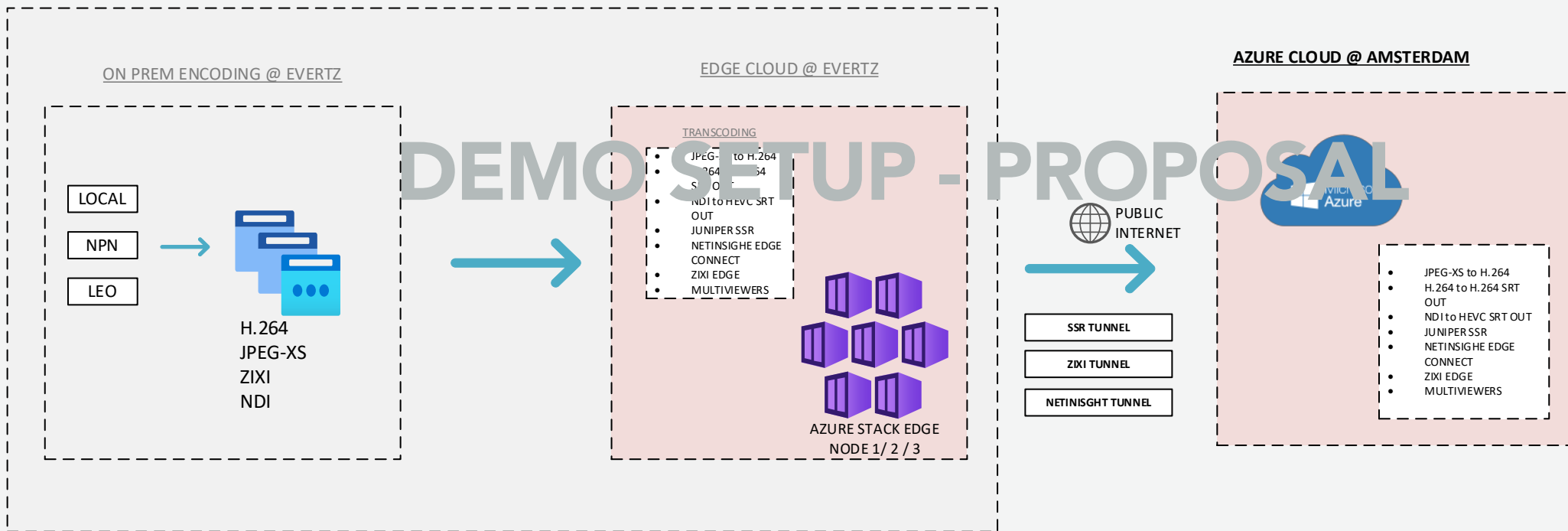
Juniper VPC

NETINSIGHT CONTROL LAYER

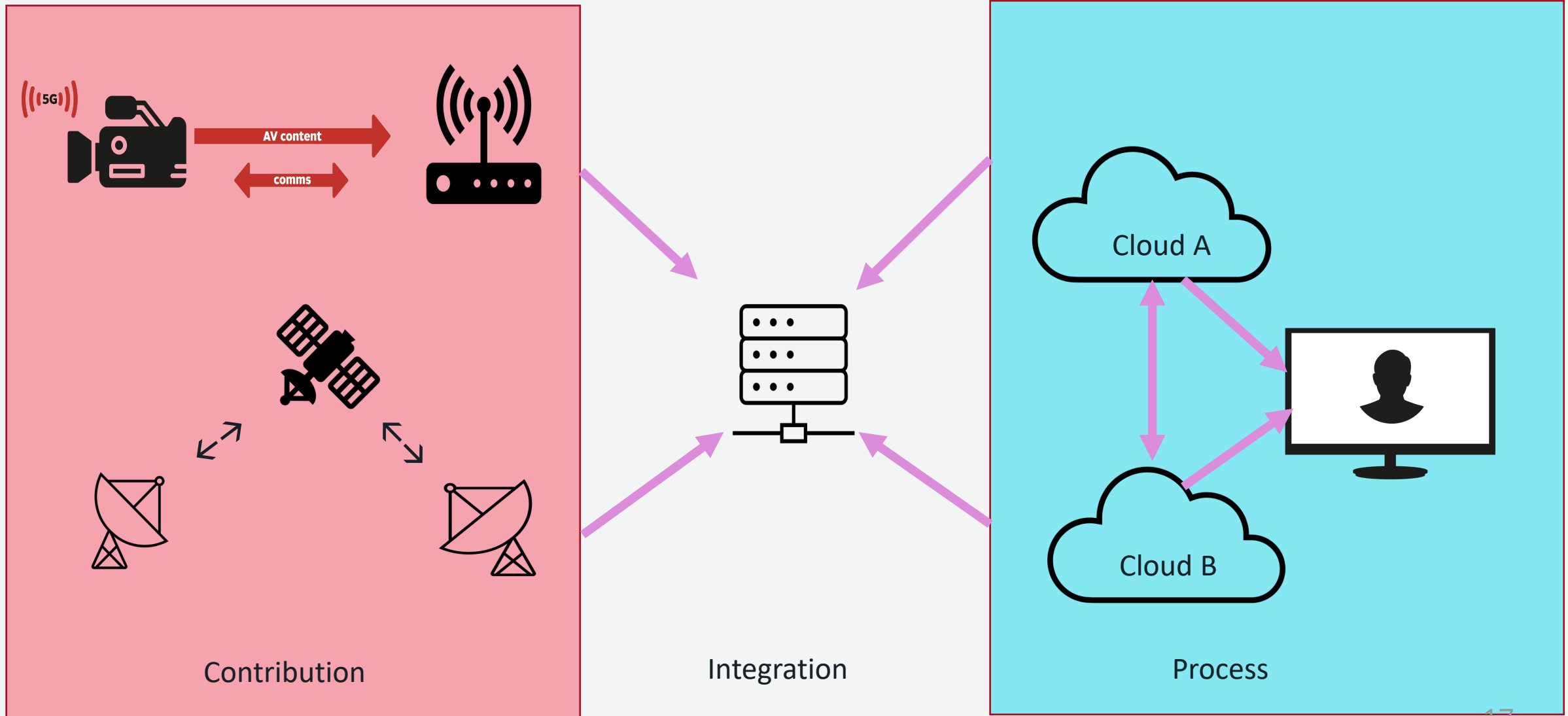
NETINSIGHT VPC

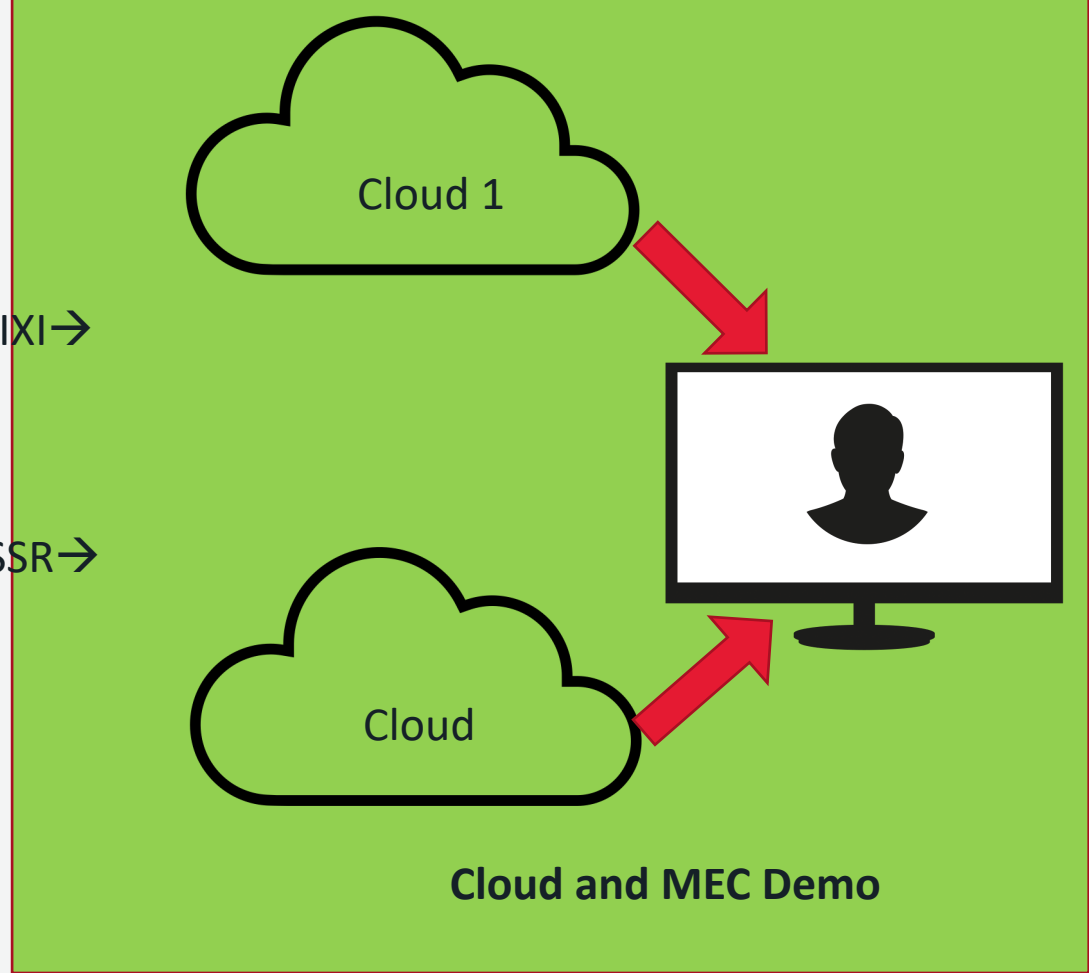
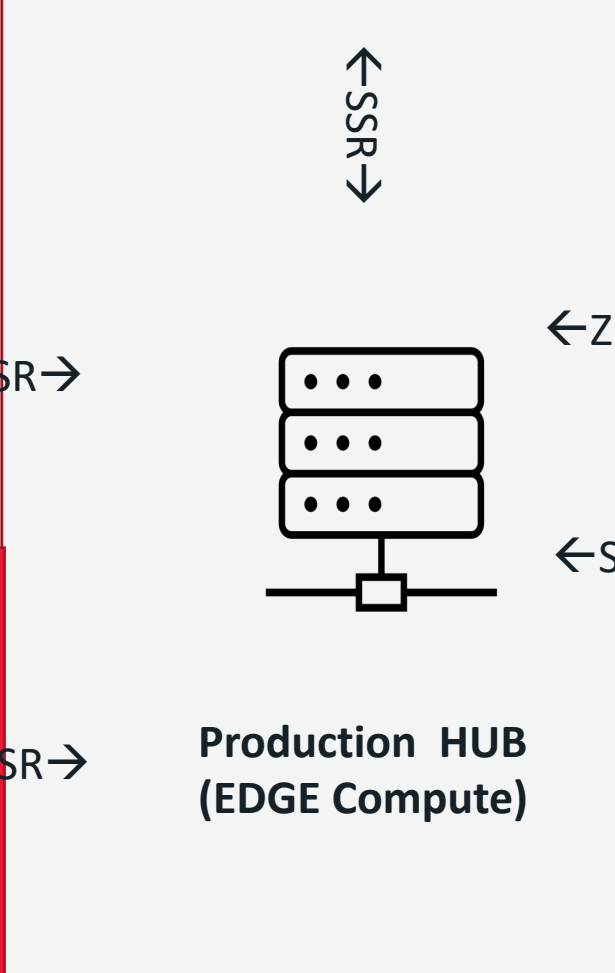
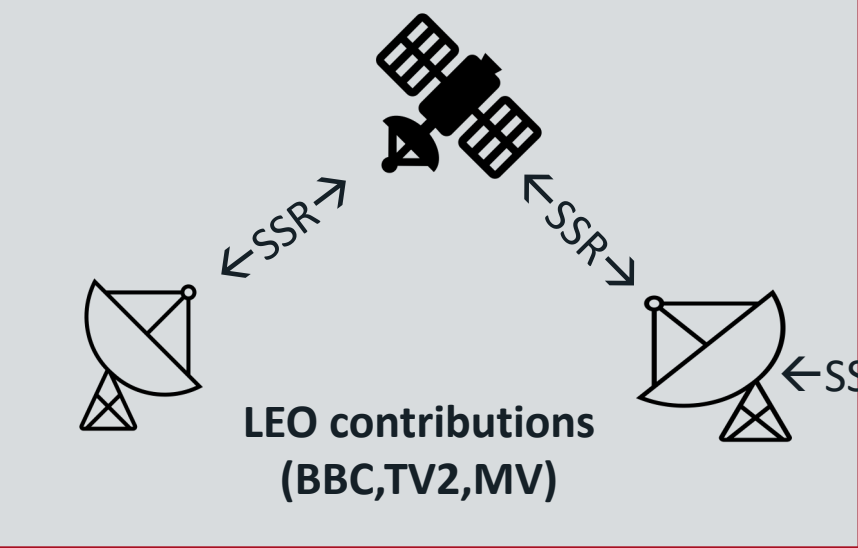
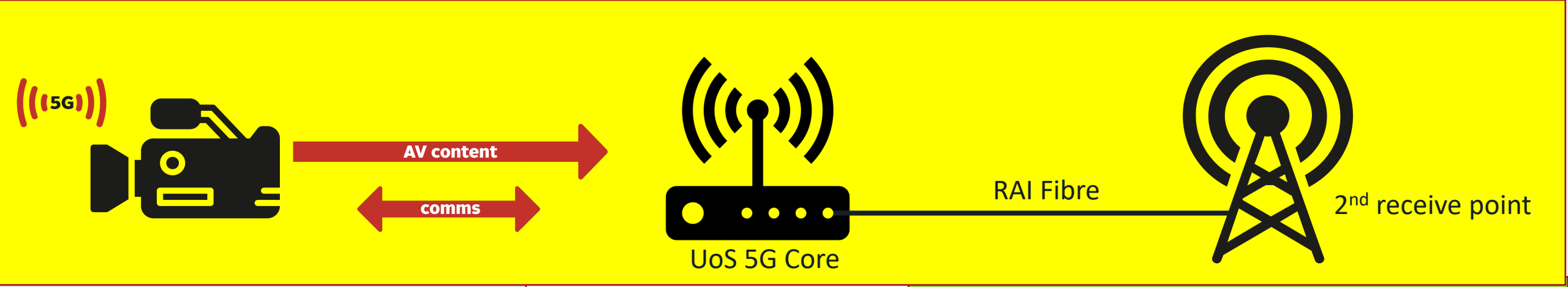
Azure Cloud (AMS)

@ EVERTZ CANADA (IBC AMS)

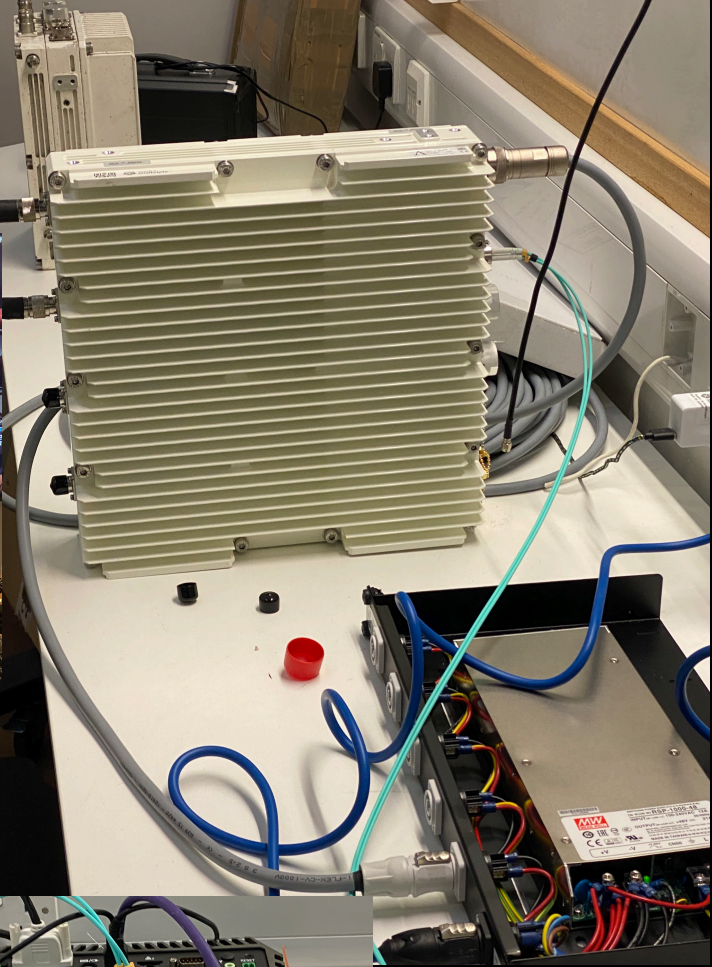


IBC DEMO





Small Scale NPN



Distributing 5G Content at IBC

