

Remote cooperation based on video conference on Edge blueprint for Tami COVID-19 Blueprint Family

Attributes	Description
Type	New
Industry Sector	Telco, Cloud
Business driver	<ul style="list-style-type: none"> •With coronavirus spreading worldwide, video conferences with software terminals are used frequently during remote work •For vertical industries such as online education, remote telemedicine, and first response, some XR information will be added on the video conference, all these need low latency and high bandwidth network.
Business use cases	<ol style="list-style-type: none"> 1. video conference on edge 2. AR/VR on video conference on edge
Business Cost - Initial Build Cost Target Objective	<p>Move currently public cloud-based zoom video applications to the edge, we can still remain the control plane on the cloud, and media plane to be close to customer site such as MEC servers in telco central offices. We choose ARM server to deploy the MEC platform to reduce the cost.</p> <p>In order to support vertical industry specific AR/XR features during video conference, ARM server need have GPU inside.</p> <ul style="list-style-type: none"> •2 ARM Nodes •Kubernetes v 1.17 for ARM •GPU (AMD, NVIDIA)
Business Cost – Target Operational Objective	<p>It more like a cloud platform, but it's specific for the edge site.</p> <ul style="list-style-type: none"> •It needs Helm and Ansible for the automation and management tools to keep operational cost lower •Maintain a mixed edge platform including x86 and Arm. It's more complex •Kubernetes v1.17 for ARM •Android 10.0 •GPU (AMD, NVIDIA) •Both Arm and X86 can support it.
Security need	Security is very important in this use case, especially for containerized applications.
Regulations	N/A
Other restrictions	N/A
Additional details	N/A

Case Attributes	Description
Type	New
Blueprint Family - Proposed Name	Tami COVID-19 Blueprint Family
Use Case	Video Conference on Edge
Blueprint proposed Name	Tami COVID-19 Blueprint Family : Remote cooperation based on video conference on Edge
Initial POD Cost (capex)	2 Arm bare metal machines, 1 10G switch, 1 AMD GPU
Scale & Type	For the smallest deployment, this requires 2 Arm bare metal machines. For large deployments, this could span to large number of bare metal machines.
Applications	Video conference for large scale soft-terminals, Online education, telemedicine, remote command in first response.
Power Restrictions	N/A

Infrastructure orchestration	Host: •Orchestrator: Kubernetes •Bare Metal ProvisioningAnsible •Kubernetes ProvisioningKuD •OS: Ubuntu •GPU Driver: AMD,NVIDIA: •Network: OVS •GPU Driver (AMD, NVIDIA)
SDN	N/A
Workload Type	•Android applications
Additional Details	N/A

Committer	Committer Company	Committer Contact Info	Committer Bio	Committer Picture	Self Nominate for PTL (Y/N)
Suzy Gu	China Mobile				
Tina Tsou	Arm				N