

2022-01-12 - EMCO: Automated Traffic Routing to MEC Application instances

Topic Leader(s)

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Topic Overview

60m [Ravi Chunduru](#) and [Nadathur Sundar](#), please modify as necessary.

9am ET

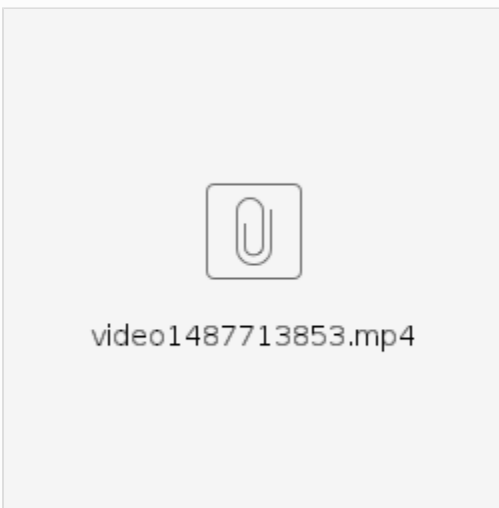
This talk will present

- Multiple MEC Application deployment scenarios
- Automation needed to address these multiple scenarios.

See Agenda herein for more detail

Slides & Recording

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Agenda

This talk will present

- Multiple MEC Application deployment scenarios
- Automation needed to address these multiple scenarios.

Application deployment scenarios include:

- MEC Applications and UPF residing in the same K8s cluster. Sub scenarios include
 1. UPF can't be programmed to redirect the traffic.
 2. UPF can be programmed to redirect the traffic.
 3. Same (1) and (2) where MEC applications are behind ISTIO ingress proxy.
- MEC Applications and UPF are in different K8s clusters. Sub scenarios include
 1. UPF can't be programmed to redirect the traffic.
 - MEC Clusters are reachable.
 - MEC Clusters are reachable via SDWAN Hub-and-spoke
 2. UPF can be programmed to redirect the traffic
 - MEC Clusters are reachable.
 - MEC Clusters are reachable via SDWAN Hub-and-spoke
 3. Same as (1) and (2) except that MEC Applications are behind ISTIO ingress proxy.
 4. Same as (1), (2), (3), except that MEC application instances are in various K8s clusters and hence a need for two load balancers - One across MEC clusters for a given application and second load balancer is to balance the traffic among instances within the target MEC cluster.

All of above scenarios are expected to work with

- Stateless HTTP and HTTPS applications.
- Stateful application
- Non-HTTP TCP applications
- Non-TCP applications

Moreover, MEC applications

- Are Dynamic
- May terminate TLS connections (and hence the need for certificates & private keys)
- May have authorization policies to allow only some type of traffic.

As one see, there are multiple combinations and it is humanly impossible to realize them with manual configuration. Automation is required and that too along with application lifecycle management.

In this talk, we will discuss with the community on understanding any other scenarios and present intent APIs and how these APIs can be used to address above scenarios.

Minutes

Action Items

