

2022-06-15 - EMCO: Edge Relocation using Temporal workflow

Topic Leader(s)

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Topic Description

We would like to present the demo, which will show the procedure of application relocation between different Edge Servers, using Temporal Workflows and EMCO orchestrator.

Topic Overview

MEC applications have many complex deployment scenarios and challenging needs for management. MEC orchestrators need to be highly extensible to handle these complexities at scale.

The Linux Foundation's Edge Multi-Cluster Orchestrator (EMCO) is designed to manage application lifecycles in telco-scale edge deployments and has an active ecosystem. But an edge provider needs to handle complex workflows for many scenarios, such as the relocation of a complex app running on a source MEC (K8S) cluster to a target MEC (K8S) cluster in order to assure MEC service continuity. This action might be triggered by several events of 5G and/or MEC:

- A 5G core notification that the UE has moved out of the coverage area of serving MEC cluster, thus causing a need to relocate the app to a new MEC Cluster.
- A source MEC cluster needs to be brought down for maintenance or is approaching capacity limit.
- The QoS level decreases due to radio connection degradation.

The open source Temporal engine can handle such workflows with resilience and scale. Extending EMCO to manage Temporal workflows gives edge providers a 1-stop shop to manage all app and infrastructure workflows. This demo is a recorded video that shows a graphical app being relocated from one edge cluster to another using a workflow launched and managed by EMCO.

Slides & Recording



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emco-edge-reloc...al-workflow.mp4

Agenda

EMCO: Edge Relocation using Temporal workflows

- Introduction to EMCO and Temporal
- Demo Setup
- Demo: Relocate an application from cluster A to cluster B
- Current and future work

Minutes

Action Items

