

A dark blue background with a network diagram of glowing yellow nodes connected by thin blue lines.

EMCO- Project Health Check

March 29, 2023

 THE **LINUX** FOUNDATION

Agenda

- Recent Community Shift & Current Community Status
- Paths Forward
- What is EMCO asking from the TAC?

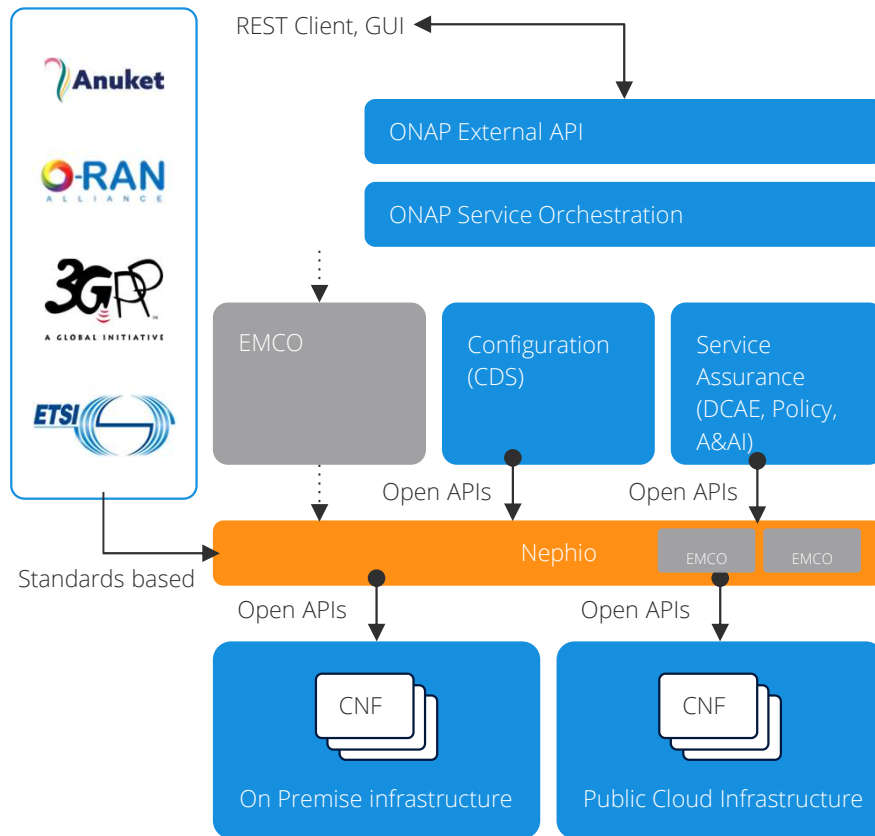
Recent Community Shift & Current Community Status

- Intel has decided to pull back from EMCO
- Intel is/was the primary code contributor to EMCO
- Aarna Networks has stepped up to take the lead on EMCO

Paths Forward

- Architecturally EMCO and Nephio can coexist as shown in slide 5
- There is potential to upstream some existing code to Nephio per (more on slide 6).
 - Reference: discussed on the February Developer & Testing Forum:
<https://wiki.lfnetworking.org/display/LN/2023-02+-+Nephio%3A+Birds+of+Feather+Session%3A+Leveraging+EMCO+Code+to+Accelerate+Nephio>
- Near-term/Short-term EMCO activities will focus on:
 - Support
 - Patch releases for bugs, security, observability, compatibility
- The community recommendations to keep EMCO as a sandbox project. This will not force the project one way or another and lets the project run its natural course while also giving the community the opportunity to move onto other directions without making a hard decision at this time.

Synergy with other OSS/SDO projects



- ONAP end-to-end service orchestration layer can interface with Nephio using open APIs for domain automation for a) cloud infrastructure b) Network function automation using Kubernetes Resource model (KRM) /Configuration-as-Data based automation.
- EMCO is another opensource in LFN, that can interface with Nephio for KRM/CaD based automation of a) cloud infrastructure b) Network function automation but it is optional.
- Kubernetes is part of CNCF and fundamental to Nephio. Nephio further expands K8s CRDs/Operators for telecom automation use cases.
- Nephio CRDs are in conformance with O-RAN and 3GPP specifications.

Nephio

ONAP
Component
(Module Name)

EMCO

Options For EMCO Contributions To Nephio

- EMCO can provide a tool to convert Helm charts to Nephio CRDs, either by itself or as a higher-level orchestrator.
 - Nephio has plans for a Helm conversion tool. Need to collaborate.
- EMCO can contribute placement, action, Istio, Open Policy Agent, Temporal, and Hardware Placement Awareness (HPA) controllers for application orchestration (at least the concepts, if not the code).
- EMCO can contribute automation for certificate management, with or without a service mesh like Istio.
- Edge Relocation code from Orange.

What is EMCO asking from the TAC?

- Feedback
- Any addition options

Backup

- [2023-02 - Nephio: Birds of Feather Session: Leveraging EMCO Code to Accelerate Nephio](#)