



# **OLF** NETWORKING

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LFN Developer & Testing Forum

# **EMCO on ROSA Clusters**

*Presented by*

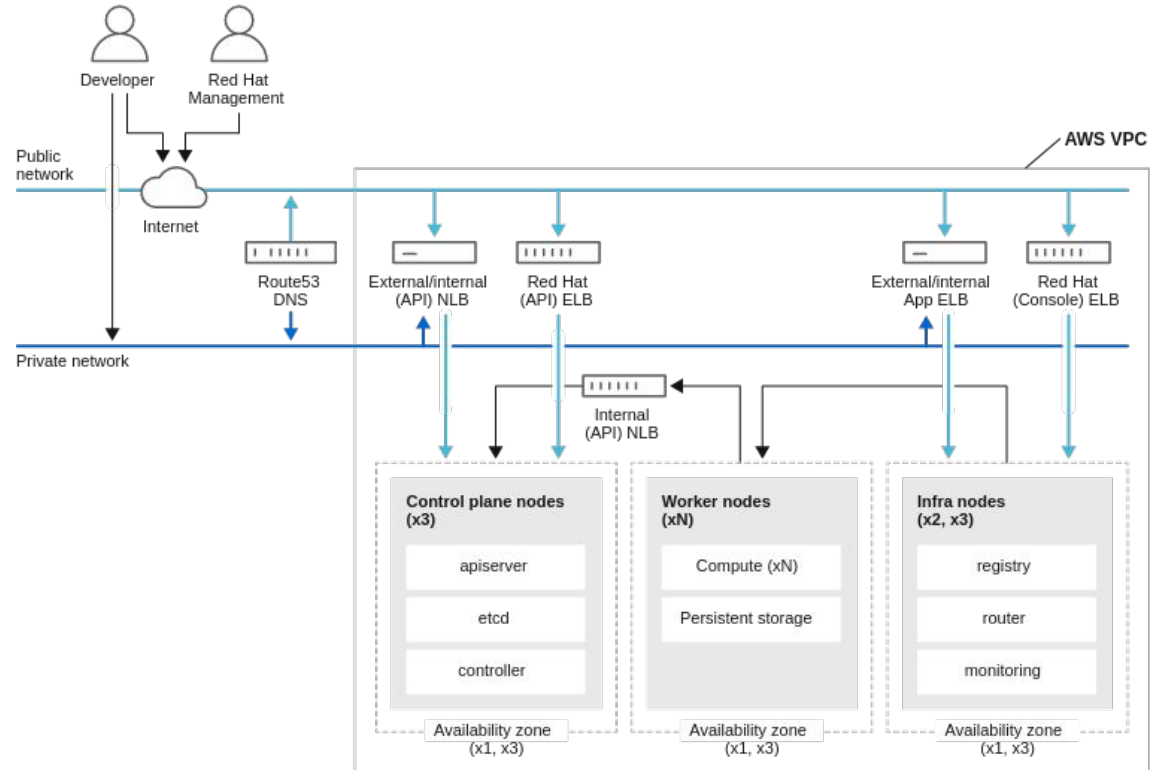
**Sriram Rupanagunta, Aarna Networks**

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**Ovidiu Valeanu, Amazon**

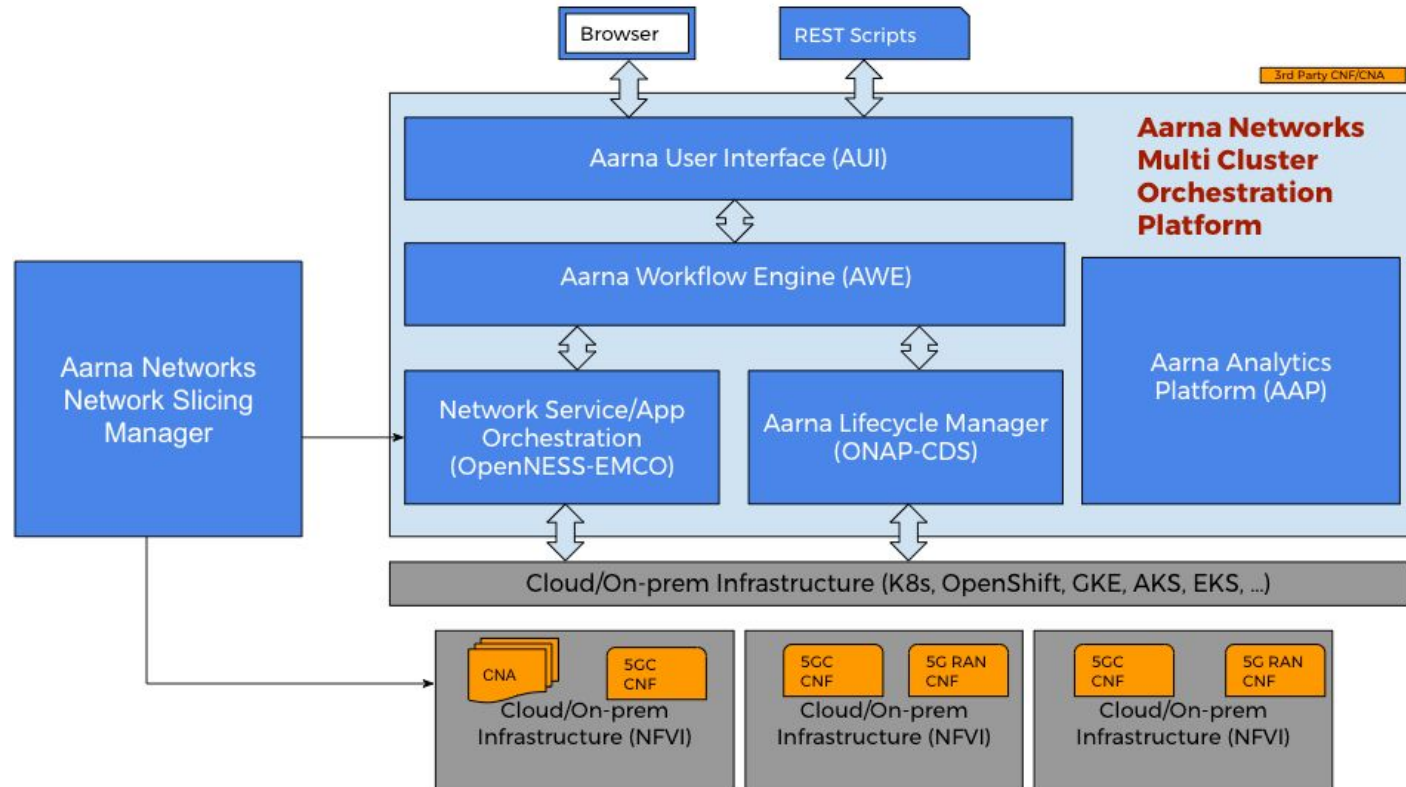
# ROSA or Red Hat OpenShift on AWS

- ROSA provides cli tool for creation and deletion of clusters
- Connects with AWS and allocates resources to create OpenShift clusters.
- All the security and resilience benefits of OpenShift Cluster are available.
- Multi-AZ implementation will make use of three Availability Zones, with a public and private subnet in each AZ
- Application workloads will be running in all three AZs for resilience, this will translate to a minimum of nine EC2 instances running within the customer account. Three Master nodes, three infrastructure nodes, and assuming at least one Worker in each AZ, three Workers.



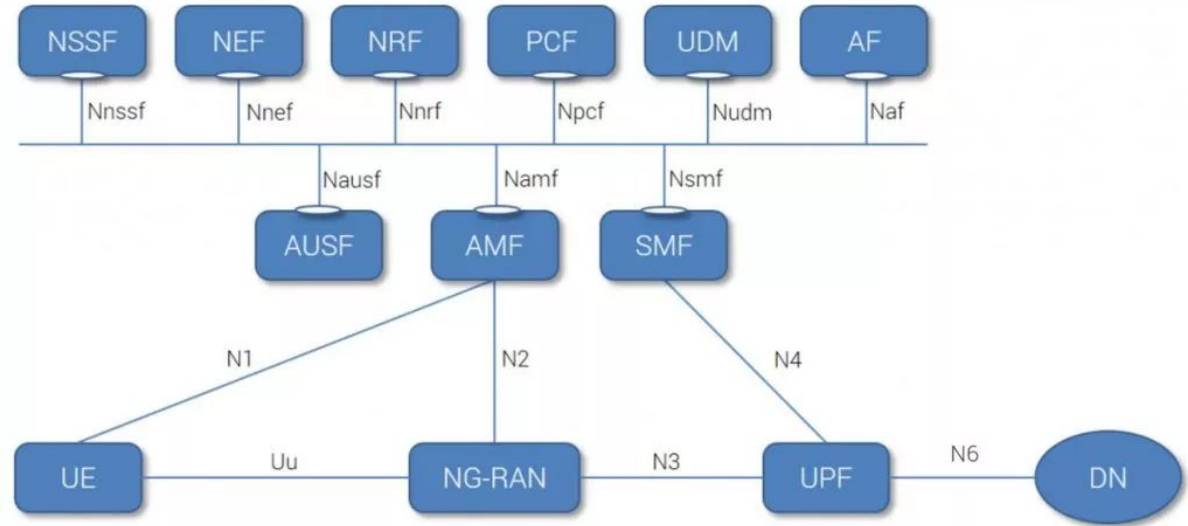
# EMCO Deployment

- EMCO (as part of Aarna's AMCOP distribution) deployed using operator on the ROSA Cluster
- We use the Multiple Availability Zones on ROSA for resilience
- A target cluster on AWS is created for deploying Free5G
- Using AMCOP GUI we deploy Free5GC pods on target cluster.



# Free5G Core

- Deployed on the K8 Cluster using EMCO
- Testing done using UE simulator for Free5G



# ROSA Management Console

The screenshot displays the ROSA Management Console interface in a Google Chrome browser window. The browser's address bar shows the URL: `console-openshift-console.apps.amcop.awy2.p1.openshiftapps.com/topology/ns/amcop-system?view=graph`. The page title is "Red Hat OpenShift Service on AWS".

The interface features a dark sidebar on the left with navigation options: Developer, +Add, Topology (selected), Observe, Search, Builds, Helm, Project, ConfigMaps, and Secrets. The main content area is titled "Project: amcop-system" and "Application: all applications". It includes a search bar with the placeholder "Find by name..." and a "Filter by resource" dropdown.

The central area displays a grid of application tiles, each represented by a circular icon with a red refresh symbol and a label. The visible application labels are: dmaap, cim, kafka, mariadb-galera, middleend, mongo, cds-bl\_cessor, dcm, cds-py-executor, ncm, orchestrator, emcoui, dtc, cds-ui, cds-db, configsvc, sdnr, gac, camunda-camunda, and rsync. At the bottom of the grid, there are icons for search, zoom, and view options (1 and 2).

# Demo Video

A background image of a golden wheat field under a bright, warm light, possibly at sunrise or sunset. The wheat stalks are in sharp focus in the foreground and become blurred towards the background.

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