Enhancing the EMCO GUI with RBAC

Presented by
Sriram Rupanagunta, Aarna Networks
Vikas Kumar, Aarna Networks
Roles Access Overview

Admin View

Tenants

- Tenant 1
- Tenant 2

Clusters

- Cluster 1
- Cluster 2

Admin Operations

- Create tenants
- Create cluster providers and onboard clusters under them
- Tag clusters to tenants
- Perform all the cluster-related operations like adding networks etc.
- Register external controller.

Tenant View

Groups

- Group A
- Group B

Logical Clouds

- LC1
- LC2

Tenant Operations

- Onboard users.
- Create resource groups and tag users to it.
- Create Logical Clouds
- Assign tag logical clouds to groups

User View

Users

- User A
- User B

Logical Clouds

- LC2

Service

- Service 1
- Service 2

User Operations

- Create services
- Create Service instances
- Approve service instance for instantiation if the role has approver role
- Instantiate service instances
RBAC In EMCO - Logical Cloud

1. Instantiate Service using LC1
2. Rsync updates all K8s Resources to use Serviceaccount SA1

- Namespace ABC in All Clusters
- Role Definition at NS level.
- Secret S1 for User XYZ
- Service account SA1 with Secret S1 bound to Role R1
Architecture Overview

API GATEWAY (nodeJs)

express rest server

Auth Service (OIDC auth flow)

OIDC Server (google/microsoft/keycloak)

At this point user is authenticated, here we impose auth rules to the api's based on roles etc

.proxy service

UI

.proxy service

emco api

gateway DB (contains user detail)

USER

HTTP REST

-authenticated user

EMCO microservices

EMCO UI
THANK YOU