Nephio O-RAN Integration Status

Presentor: Sagar Arora
(OpenAirInterface Software Alliance)
User Stories Status

1. **NF Orchestration using SMO (O-RAN Network Function Instantiation Using SMO)**
   a. References the use case 3.2.1 from O-RAN.WG6.O2DMS-INTERFACE-K8S-PROFILE-R003-v04.00.
   b. Design document **NF Orchestration Using SMO (Design details)**
   c. Development of NFO
      i. Development of NFO service logic adapted to deployment of OSC K8S profile (NFs packaged as Helm Charts)
         NOTE: No Nephio enablers will be used at this step (ongoing)
      ii. Adapting the NFO service logic to deploy RAN NFs via Nephio Enablers (Nephio O-RAN CR) (ongoing)
      iii. NFO source code will be hosted in OSC Gerrit
   d. Development and re-use of DMS, OSC Components (SMO, INF(IMS & DMS), OAM, RIC, Integration)
   e. Re-use of helm-charts of OAI (DU, CU-C/U) - OSC
   f. Re-Use of the Nephio RAN K8s Operator and KPT Packages

2. **User Story - Deploy xApp without SMO**
   a. Create a K8s controller using Nephio SDK for xApp
   b. Create a kpt package with CRs to deploy the xApp K8s custom controller
   c. Create a NF deployment CR and configCR for xApp. Use the kpt package approach used in Nephio R2.

3. **User Story - Deploy Near-RT RIC without SMO**
   a. Create a K8s controller using Nephio SDK for OSC Near RT-RIC (ongoing)
   b. Create a kpt package with CRs to deploy the Near-RT RIC K8s custom controller
   c. Create a NF deployment CR and configCR for Near-RT RIC. Use the kpt package approach used in Nephio R2.

4. **User Story - Create O-Cloud K8s Cluster**: In discussion phase still not finalized for the release
5. **User Story - O-Cloud Registration**: Still in design phase
6. **User Story - Delete O-Cloud K8s Cluster**: Still in design phase
Meeting (If anyone wants to Join)

1. Weekly every Wednesday 5 PM CET/10 AM Central Time/9:30 PM IST
2. Zoom Link
3. Track sheet