VNF Onboarding using ONAP FlexRAN Use Case

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Rajendra Mishra

rpmishra@aarnanetworks.com

Move FlexRAN to a completely open source framework

- ○ Community ONAP
- ○ OPNFV/OpenStack

Onboarding Process

- Install FlexRAN software on CentOS platform
- Build an image with all FlexRAN components
- Identify the resources needed for onboarding as VNF
- Generate HEAT template for onboaring FlexRAN on Openstack
- Onboard FlexRAN VNF through ANOD (Aarna's ONAP Distribution)

ONAP
OPEN NETWORK AUTOMATION PLATFORM

High Level FlexRAN Architecture
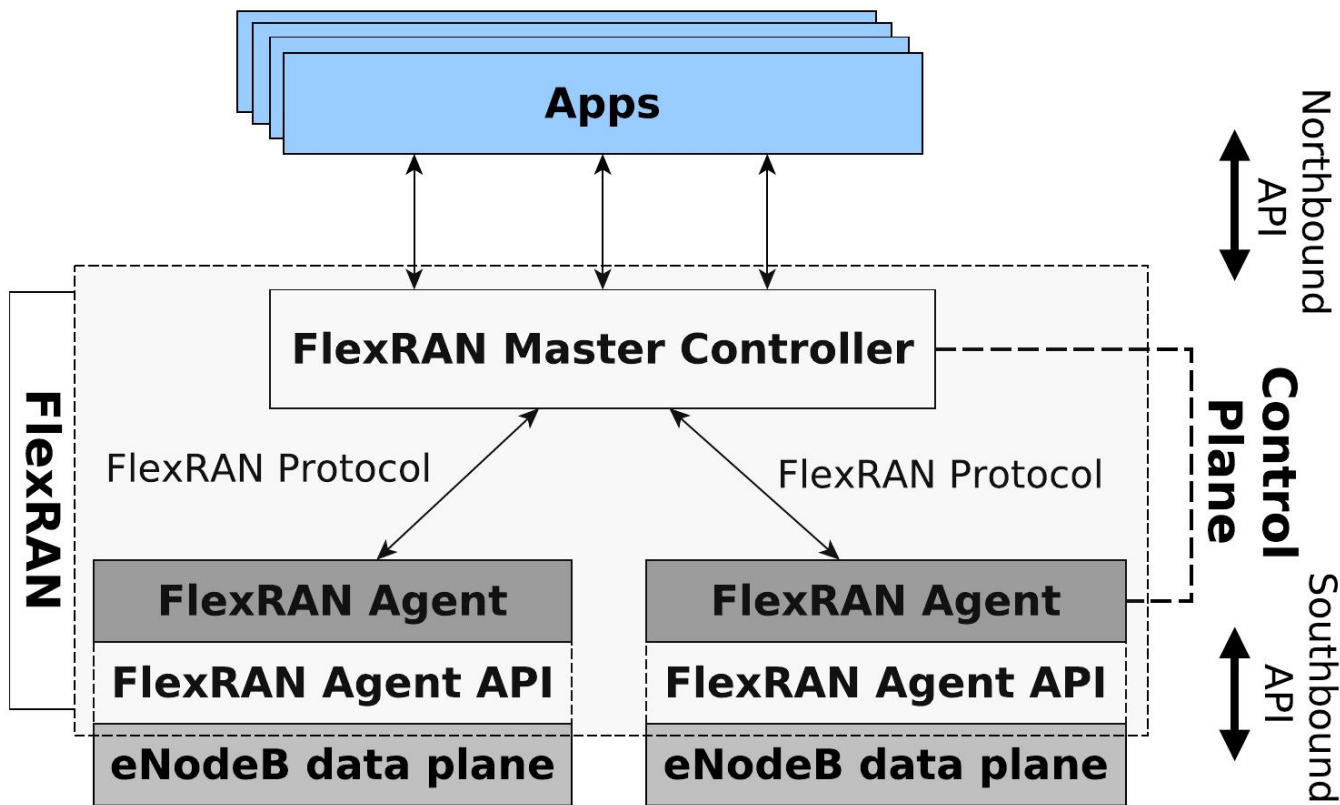
Onboarding and Network Design in ONAP

- Create openstack cloud image with required software (Intel compilers/FlexRAN/DPDK)
- Create hugepage support for shared memory setup
- Create the required resources in Openstack.
- Create HEAT template
- Add the required scripts in cloud-init section of VNF's YAML file
- Onboard the ZIP files in ONAP SDC and create VSP and NS

Deployment Using ONAP

- Run SDN-C preload scripts that set the required parameters in SDN-C
- Instantiate the FlexRAN VNF, which in turn creates the VM and runs the flexran process.
- Make sure that the "TestMAC" application is attaching the shared memory created by flexran scripts

FlexRAN Resources

- Review YAML files for FlexRAN

- Review the SDNC pre load scripts

- Verify that the application runs successfully in VM by looking at terminal log