



# CHALLENGE #42

## NCCH-4/5G-01

### Containerization, orchestration, and CI/CD of 4G/5G System

Meet the expectations of this US Node through the technology challenge described below



## GOALS

Virtualization of 4G/5G system, coupled with the edge Cloud system, opens up new possibilities for new virtual network and virtual network function composition architectures. Experiments and development need complex profiling and orchestration of Cloud infrastructure, software, and configuration automation capabilities in instantiation and reconfiguration.

## DETAILS

(1) Research in network slicing based on NFV and SDN in 5G system. (2) The current open source 5G system (eg, OAI and srsLTE, etc.) are evolving rapidly and involving complicated integration of multiple software and services. We are building a 5G testbed with different kinds of hardware and radio resources and need to develop interesting experiment profiles to create on-demand 5G system and applications.

## SKILLS REQUIRED

Familiarities with 4G/5G system. Hands-on experience with Cloud and CI/CD methodologies and system.