LFS156 – Introduction to Kubernetes on Edge with k3s

Duration: 1 Day (8hrs/day)

Prerequisites:

- Basic Linux Concepts and Command Line
- Basic Knowledge of Docker and Kubernetes

Course Objective: This course will enable developers to learn about the growing impact the cloud native movement is having on modernizing edge deployments. They will also learn the challenges of deploying Kubernetes on the edge through a concrete example via the k3s project.

Lab Requirement: Koenig DC (CentOS 9)

Module 1 – The Case for Edge Compute – Only Theory

Module 2 – The Edge Compute Landscape – Only Theory

Module 3 – Scaling Down and System on a Chip Devices – Only Theory

Module 4 – K3s: What is and Why Is It Needed – Only Theory

Module 5 – Setting Up Your Own Lab Environment

Module 6 – Deploying Real Workloads with the Kubernetes API

Module 7 – Functions at the Edge – Only Theory

Module 8 – Command & Control and Remote Access – Only Theory

Module 9 – Deployment Strategies for Applications at the Edge – Only Theory

Module 10 – Challenges with the Edge – Only Theory