

Learning with Nephio R1

Welcome to our series of tutorials for Nephio R1. This is a series of short videos, decks, blogs and user exercises to explain Nephio and the concepts underlying it, using R1. For a quick demonstration of Nephio, take a look at the [Nephio R1 Demo Video](#). It doesn't cover the more sophisticated things we can do in Nephio, but it can give you a flavor of what Nephio does. All the videos in this series may be found in our [Learning with Nephio R1 YouTube Playlist](#).

Each link below is to a separate episode detailing a different aspect of Nephio. The first few set the stage - but after that some videos will be optional in order to get a deeper understanding of some of the different concepts. Each episode has an article, and most also have slides and a video. You can use the comments on the Wiki to ask any questions you may have.

Available Now

- [Episode 1 - Series Introduction](#)
- [Episode 2 - Why Nephio?](#)
- [Episode 3 - The Nephio Approach](#)
- [Episode 4 - Building a Demo Environment](#)
- [Episode 5 - Nephio free5gc Operator](#)
- [Episode 6 - Deploying Helm with Flux CD](#)

Ideas for Future Episodes

Your contribution? We would love to have your contribution - it can be a simple article, video, slides, or all three.

We have many areas we could address. Please take a look at the list below and let us know what is most interesting. Make a request in the comments or on the [GitHub issue](#)!

- Walking Through the Exercises
- Nephio Architecture
- The Nephio Community
- Nephio free5gc Operator
- All About Packages and Repositories
- Deploying a Package Many Times
- Collaborative Package Configuration
 - Nephio package configuration lifecycle overview
 - Package conditions and multiple user interaction
 - Specializers and external system integrations
- Creating a Simple Package
- Creating a Cluster Package for non-KinD Clusters
- Using KRM Function
- Writing KRM Functions
- Deep Dive: Nephio Package Configuration Methods
 - Different ways to mutate a package as it goes from the original source, to your workload cluster
 - How and when to use different methods, their pros and cons
 - Mutations on clone, KRM functions, injectors, package fanout, apply time mutation, mutating webhooks, runtime operators
- Deep Dive: PackageVariant and PackageVariantSet
- Package Dependencies
- Nephio and ConfigSync
- Nephio and Argo
- Nephio and Flux
- Nephio and Crossplane
- Nephio and Helm