

DANM - TelCo grade K8s network manager

In order to provide multiple network interfaces per Kubernetes pod as well as to support a variety of different network interface types, REC uses DANM as the primary K8s network manager component.

The main concept of DANM is providing consistent Kubernetes APIs for network management, which allows both operators and tenant users to describe network topologies in greater detail and variety than typically supported by Kubernetes.

The [DANM README](#) provides extensive documentation on this component. There are [examples](#) of YAML files including [how to provide pods with SR-IOV interfaces](#) and how to manage networks through the various, [production grade APIs](#).

Akraino REC supports provisioning Pod interfaces via IPVLAN, MACVLAN, Flannel, or SR-IOV backends. When a Pod does not explicitly ask for network connections, DANM still connects it to the default cluster network. That is, the Flannel provided VxLAN overlay.

By default Pods do not have external network access through this network connection, but from R2 onwards it is possible to configure the underlay to provide external connectivity for Pods only connecting to the default Kubernetes cluster network.