

KNI PAE Release 4 Notes

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Release Notes for the KNI Provider Access Edge

Summary

The Provider Access Edge blueprint aims to provide a platform for running NFV (e.g. vRAN, vBNG, SEBA) and MEC (e.g. MobileEdgeX) workloads on a small footprint, self-managing Kubernetes-on-bare metal cluster. The release 4 blueprint supports managing a whole edge stack only using Kubernetes resource configs (manifests). Edge stacks created with this blueprint can run both containerised and VM-based workloads (via KubeVirt) on a common platform. Release 4 also includes multi-network support (via Multus). Applications on top of this platform are managed via the Operator Framework.

In Release 4, we worked on upgrading the existing components and stabilizing the platform, plus replacing the old CentOS RT worker nodes by the native support of CoreOS, the base operating system for our Kubernetes distribution: OpenShift.

What is Released

Components of the release (Akraino new)

Helper tool simplifying CI/CD based blueprint deployments into AWS, GCP, and bare metal (or virtual bare metal) using the upstream OpenShift Kubernetes Distro (OKD): <https://gerrit.akraino.org/r/admin/repos/kni/installer>

Manifests for configuring Kubernetes cluster, and adding additional workloads for Mobile Edge Applications: <https://gerrit.akraino.org/r/admin/repos/kni/blueprint-pae>

All our code is released under Apache license: <https://www.apache.org/licenses/LICENSE-2.0.html>

Dependencies of the release (upstream version, patches)

- OKD v4.5 GA
- CRI-O: v1.18
- KubeVirt v0.27.2
- Ceph 14.2.8 (2d095e947a02261ce61424021bb43bd3022d35cb) nautilus (stable)
- Multus-cni: version:v4.3.3-202002171705, commit:d406b4470f58367df1dd79b47e6263582b8fb511

Upgrade Procedures

N/A

Release Data

Enhancements

N/A

Functionality changes fo Release 4

- Replaced CentOS-RT worker nodes by native RT kernel support from CoreOS.

New Features for Release 4

- Stabilization of the whole platform

Version change

4.0.0

Module version changes

N/A

Document Version Changes

0.1	30-May-2019	KNI Blueprint Team	First Draft
1.0	15-Nov-2019	KNI Blueprint Team	Corrected version
2.0	25-Nov-2019	KNI Blueprint PAE team	Release 2 version
3.0	24-Apr-2020	KNI Blueprint PAE Team	Release 3 version
4.0	17-Dec-2020	KNI Blueprint PAE Team	Release 4 version

Deliverable

Software Deliverable

Software is available in the [Akraio KNI repo](#).

Documentation Deliverable

- [KNI PAE Architecture document](#)
- [KNI PAE Installation Guide](#)
- [KNI PAE Test document](#)
- [KNI PAE Release 4](#)

Fixed Issues and Bugs

N/A

Known Limitations, Issues and Workarounds

System Limitations

Open Air Interface will be added in next releases.

Known Issues

N/A

Workarounds

N/A