# Illumio® Core for Kubernetes
Version 4.2.0

# Release Notes

# Contents

# Welcome

These release notes describe the resolved issues and related information for the 4.2.0 release of Illumio Core for Kubernetes, formerly known as Illumio Containerized VEN, or C-VEN. Illumio Core for Kubernetes also includes the related required component, Kubelink. Because of this heritage, many references to this product as "C-VEN" are still used throughout the documentation.

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# What's New in This Release

The following are new and changed items in this release from the previous releases of C-VEN and Kubelink:

- **New Kubelink 3.3.0**
  This Kubernetes 4.2.0 release includes an upgraded Kubelink component, version 3.3.0. Note that C-VEN 22.5.13 requires PCE version 22.5.0 or later, and supports PCE 23.2.0 or later.
- **Support for Flat Network Configurations**
  Kubernetes CNIs that use a flat network configuration, such as Azure CNI for Azure AKS and AWS VPC CNI for AWS EKS, are supported.  To configure a flat network type when deploying with Helm Chart, specify `networkType: flat` in the `illumio-values.yaml` file. This support requires PCE 23.2.0 or later.
- **Apply label mapping for nodes reported by Kubelink**
  The PCE can now take existing Kubernetes node labels and map them to Illumio labels using a new Label Map Custom Resource Definition (CRD). Note that it is possible to automatically override the values of the new Illumio node's labels in this process. This feature requires PCE 23.2.0 or later.
- **Log Entry Enhancements**
  Log entries (accessed with `kubectl logs` ) have been improved by providing timestamps to all log lines, along with a log level.

## Product Version

**Compatible PCE Versions:** 22.5.0 and later releases
**Current Illumio Core for Kubernetes Version:** 4.2.0, which includes:

- C-VEN version: 22.5.13
- Kubelink version: 3.3.0
- Helm Chart version: 4.2.0

### Release Types and Numbering

Illumio release numbering uses the following format: "a.b.c-d"

- "a.b": Standard or LTS release number, for example, "21.2"
- ".c": Maintenance release number, for example, ".1"
- "-d": Optional descriptor for pre-release versions, for example, "preview2"

# Updates for Core for Kubernetes 4.2.0

## C-VEN

### Resolved Issues

- **CRI-O 1.26 no longer uses CRI API v1alpha2** (E-102850)
  To accommodate CRI-O 1.26 dropping support for v1alpha2, the C-VEN 22.5.13 container runtime support now includes CRI-O 1.26 v1 (1.26.1), and not CRI 1.26 v1alpha2. Therefore, with this release, containerd versions 1.5 or lower, and CRI-O versions 1.19 or lower are no longer supported.
- **Load custom certificates in memory** (E-99919)
  In configurations that use a custom-signed PCE to ensure that C-VEN to PCE communication is trusted, an improved internal mechanism now has C-VEN read in any CA bundles for a custom-signed PCE directly from the `/etc/pki/tls/ilo_certs` directory on the C-VEN pods, rather than appending those custom CA bundles to the default bundle `/etc/ssl/certs/ca-bundle.crt`.

## Known Issue

- **C-VENs not automatically cleaned up after AKS upgrade** (E-103895)
  After upgrading an AKS cluster, sometimes a few duplicate C-VENs might not be automatically removed as part of the normal upgrade process, and remain in the PCE as "non-active." Note there is no compromise to the security or other functionality of the product.
  Workaround: Manually prune the extra unmigrated C-VENs from the PCE by clicking the Unpair button for each of them.

## Kubelink

### Resolved Issue

- **Kubelink 3.1.0 crashing with "reconcileService failed" message** (E-105107)
  Kubelink was crashing with a "reconcileService failed" error when reconciling the deletion of Kubernetes Service if the Service had `spec:ports:targetPort` defined as a string, with a name that was not defined in the backend targeted by this Service as a `spec:template:spec:containers:ports:` name. This issue is resolved.

### Known Issue

- **Kubelink crashes when applying label mapping with PCE using two-sided management ports** (E-105391)
  When applying label mappings with the LabelMap CRD, Kubelink crashes if the PCE uses two-sided management ports.
  Workaround: Use label map feature only with a PCE that uses only one management port.

## Security Information for Core for Kubernetes 4.2.0

For information about security issues, security advisories, and other security guidance pertaining to this release, see Illumio's Knowledge Base in Illumio's Support portal.

## Base Image Upgraded

Illumio upgraded the minimal Universal Base Image (UBI) for Kubelink to address vulnerabilities in bash (RHSA-2023:0340). The bash packages provide Bash (Bourne-again

shell), which is the default shell for Red Hat Enterprise Linux, in particular, a fix for CVE-2022-3715.

The C-VEN base OS image is upgraded to minimal UBI for Red Hat Linux 7.9-979.1679306063, which is available at **https://catalog.redhat.com/software/containers/ubi7/ubi-minimal/5c3594f7dd19c775cddfa777**.

Customers are advised to upgrade to Core for Kubernetes 4.1.0 or higher for these security fixes.