IBM

User guide:
Monitoring license usage of containerized software

Learn how to use License Service which is required by the pricing rule for containerized software deployed on all Kubernetes-orchestrated clouds.

See how to use a new licensing solution to prepare a license usage snapshot.

This document describes the new IBM licensing solution that is based on License Service. Find out how to install License Service and produce license usage snapshot for IBM containerized software.

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IBM pricing rule for containerized environments

The pricing rule for containerized software allows you to benefit from the additional granularity of control of resource consumption for products measured with Virtual Processor Cores (VPC) and Processor Value Unit (PVU) metrics.
For detailed information about the pricing rule and its basic principles, see IBM Container Licenses.

The counting algorithm that supports the pricing rule is implemented in IBM License Service.
Use the instructions included in this guide to learn how to achieve the following goals:

- Use License Service which is required for monitoring and measuring license usage of the containerized software in accord with the pricing rule for containerized environments. Manual license measurements are not allowed by this pricing rule. Contact your IBM Sales Representative for more information.
- Deploy License Service if you use or plan to use IBM containerized software that does not have an integrated License Service.
- Note that License Service is or will soon be automatically deployed during the installation of each IBM Cloud Pak.
- Test and evaluate the pricing rule for containerized software in test or production environment.

License usage snapshot

License usage snapshots shows the license usage of your containerized software. It helps you monitor your license usage and might be needed for audit purposes.

License Service measures and calculates license usage per cluster in containerized environments for both standalone IBM containerized software and IBM Cloud Paks. License Service provides a license usage snapshot which shows license usage of the deployed products for the cluster.
In multicluster environments, you need to add up the values from each cluster for an overview of the entire environment.
The license usage of the products that are deployed as non-containerized software on virtual machines is still tracked in License Metric Tool (LMT). For non-containerized products, License Metric Tool produces a report that is analogical to the report delivered by License Service.
If your product is deployed in containers and on VMs, get inputs from both License Service and LMT and calculate the overall license usage. For more information, see Tracking license usage in a multicluster environment.

Supported systems

License Service is supported on all Kubernetes-orchestrated clouds. It was tested on the following systems:
- Red Hat OpenShift Container Platform 3.11, 4.1, 4.2, 4.3 or newer
- Kubernetes 1.11.3 or higher
- IBM Cloud Kubernetes Services (IKS)
- Google Kubernetes Engine (GKE)
- Azure Kubernetes Service (AKS)
- Amazon EKS - Managed Kubernetes Service (EKS)

Supported products and license metrics

Supported products

License Service collects license usage of the following products:
- IBM Cloud Paks. License Service is or will soon be automatically deployed during the installation of each IBM Cloud Pak.
- IBM stand-alone containerized applications for which IBM implemented proper annotations. At this point, all IBM product teams are working towards implementing annotations in their products.

To check whether the product you want to retrieve license usage for has already implemented annotations, complete the following steps:

1. Run the following command:

    ```
    kubectl describe pod <pod name>
    ```

2. Search for the following fields that are required for licensing: productID, productMetric, productName. If these fields are there and have correct values your product is correctly annotated, and its license usage can be tracked with License Service.

    If so, you can move on to installing License Service.

    If not, contact the IBM Support of the product for which there are no annotation detected, and ask them if they have already implemented the annotations, or when the annotations will be added. It might prove that another version of your product has already been annotated, so you might simply upgrade to track your licenses with License Service. You might also prompt the team to implement the annotations sooner than planner or ask them if there is a way to prepare such annotations on your own.

Supported metrics:

License Service collect license information about the following metrics:
- Virtual Processor Core (VPC)
- Processor Value Unit (PVU)

Installing and using License Service

1. **Installing License Service**

   For the step-by-step instruction, see the guide in the IBM Licensing Operator GitHub repo. Choose the installation scenario that fits your setup.

2. **Using License Service**
   Retrieving license usage.
   Verifying completeness of license usage data.
   Tracking license usage in a multicluster environment.

   > **Note:** At this point, the multicluster calculations need to be done manually. This process might be automized in the future.

3. **Uninstalling and troubleshooting License Service**
   For the step-by-step instruction, see the guide in the IBM Licensing Operator GitHub repo.

Contact

- In case of problems related to collecting license usage for an IBM product, contact the IBM Support of this product.
- In case of problems with installing License Service, downloading and setting up the operator, send an email to talk2sam@us.ibm.com.