Cluster Administrator

https://kubesphere.io/docs/v3.4/cluster-administration/

+ KubeSphere Log Dashboard

As an open-source, application-centric container platform, KubeSphere v3.4.1 uses <u>OpenSearch</u> instead of ElasticSearch as the backend storage for logs, events, and auditing. By default, we can use the query tool provided in the lower-right corner on the KubeSphere console to retrieve logs, events, and auditing records.

+ Enable Log Dashboard Before KubeSphere Installation

- **Install on Linux**

When installing KubeSphere with multiple nodes on Linux, you should create a configuration file that lists all KubeSphere components.

1. When you <u>Install KubeSphere on Linux</u>, create a file `config-sample.yaml` and change it by executing the following command:

cmd: vi config-sample.yaml

2. Before enabling the OpenSearch Dashboard, you need to enable components `logging`, `opensearch`, and `events` or `auditing` in the yaml file. In this example, enable `events` as follows:

```yaml
opensearch:
  basicAuth:
    enabled: true
    password: admin
    username: admin
  dashboard:
    enabled: true        # Change "false" to "true".
  enabled: true          # Change "false" to "true".
  externalOpensearchHost: ""
  externalOpensearchPort: ""
  logMaxAge: 7
  opensearchPrefix: whizard
```

```yaml
logging:
  enabled: true    # Change "false" to "true".
  logsidecar:
    enabled: true
    replicas: 2
```

```yaml
events:
  enabled: true   # Change "false" to "true".
  ruler:
    enabled: true
    replicas: 2
```

3. Execute the following command to create the cluster using this configuration file:

cmd: ./kk create cluster -f config-sample.yaml

- **Install on Kubernetes**

When you Install KubeSphere on Kubernetes, you need to enable the relevant components in the cluster-configuration.yaml file.

1. Download the cluster-configuration.yaml file and edit the file using the following command:

cmd: vi cluster-configuration.yaml

2. Before enabling the OpenSearch Dashboard, you need to enable components `logging`, `opensearch`, and `events` or `auditing` in the yaml file. In this example, enable `events` as follows:

```
opensearch:
  basicAuth:
    enabled: true
    password: admin
    username: admin
  dashboard:
    enabled: true      # Change "false" to "true".
  enabled: true          # Change "false" to "true".
  externalOpensearchHost: ""
  externalOpensearchPort: ""
  logMaxAge: 7
  opensearchPrefix: whizard
```

```
logging:
  enabled: true    # Change "false" to "true".
  logsidecar:
    enabled: true
    replicas: 2
```

```
  events:
    enabled: true  # Change "false" to "true".
    ruler:
      enabled: true
      replicas: 2
```

3. Execute the following command to start KubeSphere installation:
cmd: kubectl apply -f https://github.com/kubesphere/ks-installer/releases/download/v3.4.1/kubesphere-installer.yaml

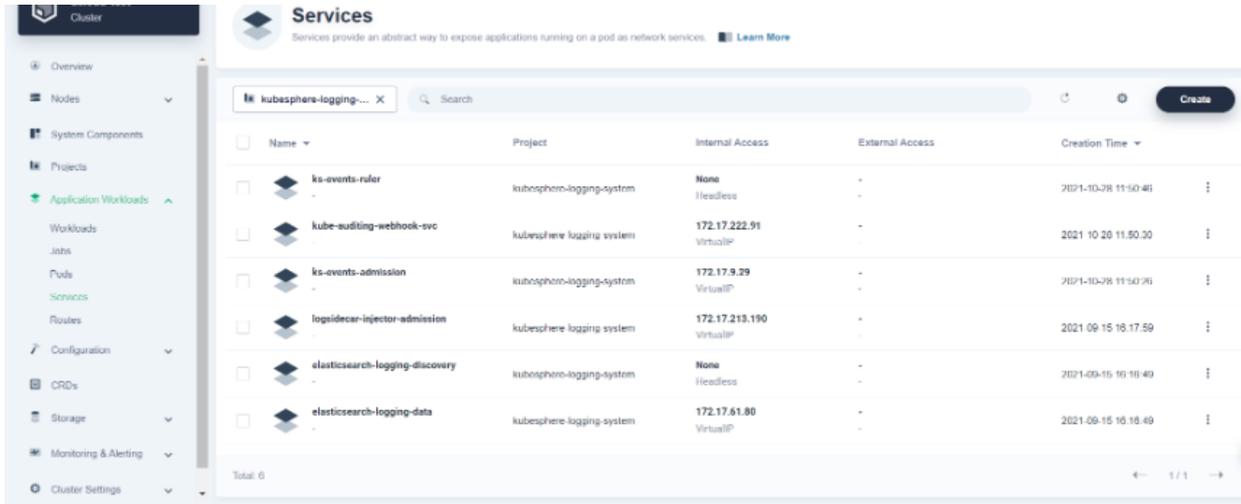   **kubectl apply -f cluster-configuration.yaml**

+ Enable Log Dashboard After KubeSphere Installation

1. Log in to the console as the `admin` user, click **Platform** in the upper left corner, and select **Cluster Management**.
2. Click **CRDs**, enter `clusterconfiguration` in the search bar, and click the search result to view its detailed page.
3. Under **Custom Resources**, click the three dots on the right side of `ks-installer`, select **Edit YAML**.
4. In the YAML file, edit as follows, and then click **OK** to save the configuration.
5. Check the installation process in kubectl by executing the following command:

cmd: kubectl logs -n kubesphere-system $(kubectl get pod -n kubesphere-system -l 'app in (ks-install, ks-installer)' -o jsonpath='{.items[0].metadata.name}') -f

+ Access Log Dashboard

After logging in to the console, expose the 5601 port of the OpenSearch dashboard through NodePort or other forms such as Ingress to an accessible network as below:

+ Node Management