Instructions to setup a centralized logging on OpenShift for container logs using the EFK (Elasticsearch-Fluentd-Kibana) stack:

Initial setup:

1. Login to the Openshift console
2. Navigate to the Operators tab and select OperatorHub

Elasticsearch operator installation

1. Search for ‘OpenShift Elasticsearch Operator’ provided by Red Hat
2. Proceed with the installation of the OpenShift Elasticsearch Operator, retaining the default configuration settings.
3. Post-installation, access the 'Installed Operators' section to confirm the successful deployment of the Elasticsearch Operator.
4. Within the 'Installed Operators' view, select the 'OpenShift Elasticsearch Operator'. Initiate the creation of an Elasticsearch instance by selecting 'Create Elasticsearch'.
5. Set the nodeCount parameter to 3 to configure a three-node Elasticsearch cluster, then confirm the creation.

OpenShift Logging Operator Installation

1. Return to the 'OperatorHub' and search for the 'Red Hat OpenShift Logging' operator.

2. Install this operator, ensuring default settings are maintained.

3. Navigate back to the 'Installed Operators' section to verify the installation of the OpenShift Logging Operator.

ClusterLogging Configuration

1. In the 'Installed Operators' section, select the 'Red Hat OpenShift Logging' operator. Navigate to 'ClusterLogging'.

2. Start the process to create a 'ClusterLogging' instance via the OpenShift console.

3. Specifications:

    - Set the collection method to fluentd.
    - Choose elasticsearch as the log storage type.
    - Configure the Elasticsearch cluster size by setting the 'Elasticsearch Size' to 3 nodes within the Elasticsearch specifications.
    - Select kibana for log visualization.

4. Complete the setup by clicking 'Create'.