Kubernetes log management

Whether you’re a cloud-native company that uses Kubernetes from the start, or you’re adopting it for the first time, Kubernetes log management needs to be taken seriously. Here are three common issues facing Kubernetes log management and tips for Kubernetes to get the best visibility into your clusters.

1. Issues with Kubernetes native logging

   - **Lack of centralization**
     
     Monitoring information is spread across multiple files in Kubernetes clusters and service replicas.

   - **Log access**
     
     Kubernetes logs are stored as application logs on the instance where they occur. Because of this, unless there is a connection to a logging system, you can’t access the logs remotely through the Kubernetes API. This means you lose access to the logs for applications that aren’t running in the cluster.

   - **Storage**
     
     By default, containerized applications store logs directly to the application’s storage. Logs are only accessible in the instance where they are stored, which limits access for developers and operators.

   - **Log structure**
     
     Kubernetes logs are formatted as a structured log, making it difficult to read or extract valuable information that you can use to troubleshoot or observe the state of your applications.

2. **Tips for successful Kubernetes logging**

   - **Don’t use kubectl to manage logs**
     
     Using kubectl to manage logs from an application log file has limitations. It’s not possible to let kubectl manage the logs generated by another Kubernetes pod.

   - **Don’t settle for stdout and stderr**
     
     Kubernetes logs are stored as structured logs, which makes it difficult to parse them in a human-readable format. You need a tool that allows you to view the logs as if they were in a structured format.

   - **Standardize logs**
     
     Kubernetes doesn’t allow you to customize your logging to a standard format, making it harder to gain valuable insights. LogDNA is an example of a logging API that allows you to easily manage the logs generated by your applications.

Using log management solutions like LogDNA, you can set up logs from any part of your Kubernetes architecture, whether it’s on the Kubernetes in a namespace or in a different cluster. With LogDNA, you can set up a logging API that allows you to view the logs in any way you want. If you have a new Kubernetes event in the log, you can see it in real-time and access it remotely.

To learn more about LogDNA, sign up for Kubernetes log management and see if it works for you. Get started in just a few minutes.