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Chapter 1.
KUBERNETES ON NVIDIA GPUs: CSP INSTALLATION GUIDE

This document serves as a step-by-step guide to getting started with using Kubernetes on NVIDIA GPUs available in cloud infrastructure provided by Amazon Web Services (AWS) and Google Cloud Platform (GCP).

Kubernetes is an open-source platform for automating deployment, scaling and managing containerized applications. Kubernetes on NVIDIA GPUs includes support for GPUs and enhancements to Kubernetes so users can easily configure and use GPU resources for accelerating workloads such as deep learning. This document serves as a step-by-step guide to getting started with using Kubernetes on NVIDIA GPUs available in cloud infrastructure provided by Amazon Web Services (AWS) and Google Cloud Platform (GCP).

1.1. Using Kubernetes with Amazon Web Services

On the Amazon Web Services (AWS) platform, NVIDIA makes available a customized Amazon Machine Image (AMI) with the software needed to use NVIDIA GPUs. For more information on the software included in the AMI, see the NVIDIA Volta Deep Learning AMI Release Notes.

1. Use the procedures in Using NGC with AWS Setup Guide to launch virtual machine (VM) instances on AWS using the NVIDIA AMI.

2. After connecting to the instance, follow the instructions provided in the Kubernetes on NVIDIA GPUs Installation Guide to get started with setting up a Kubernetes cluster on AWS.

1.2. Using Kubernetes with Google Cloud Platform

On Google Cloud Platform (GCP), NVIDIA provides a cloud image with the software needed to use NVIDIA GPUs. For more information on the software included in the AMI, see the NVIDIA GPU Cloud Image for Google Cloud Platform Release Notes.
1. Use the procedures in Using NGC with Google Cloud Platform Setup Guide to launch GPU instances on GCP.

2. After connecting to the instance, follow the instructions provided in the Kubernetes on NVIDIA GPUs Installation Guide to get started with setting up a Kubernetes cluster on GCP.
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