

Amazon EKS cluster upgrade - k8s version

Upgrading Your Amazon EKS Cluster

Introduction: Amazon Elastic Kubernetes Service (Amazon EKS) is a fully managed container orchestration service that simplifies the deployment, scaling, and management of Kubernetes applications on AWS. As Kubernetes evolves and new features are introduced, it becomes essential to keep your EKS cluster up to date by performing regular upgrades. Upgrading your Amazon EKS cluster ensures that you can leverage the latest advancements in Kubernetes and take advantage of improved performance, scalability, security patches, and new features.

Why Upgrade your Amazon EKS Cluster?

1. **Performance and Scalability:** Upgrading your Amazon EKS cluster allows you to benefit from performance enhancements and optimizations introduced in newer versions of Kubernetes. These upgrades can help improve the responsiveness and efficiency of your applications running on the cluster. Additionally, new scalability features and improvements may enable you to scale your workloads more effectively as your business grows.
2. **Security:** Regularly upgrading your EKS cluster ensures that you have the latest security patches and fixes for any known vulnerabilities. Kubernetes upgrades often address security-related issues, reducing the risk of potential attacks and data breaches. By keeping your cluster up to date, you can maintain a more secure environment for your applications and data.
3. **New Features and Functionality:** Kubernetes is a rapidly evolving technology, with new features and functionality being introduced with each release. Upgrading your Amazon EKS cluster allows you to take advantage of these new capabilities, such as enhanced networking options, improved storage options, or advanced monitoring and observability features. By leveraging these new features, you can enhance the performance, reliability, and manageability of your applications.

Best Practices for Upgrading Your Amazon EKS Cluster:

1. **Plan and Test:** Before upgrading your EKS cluster, thoroughly review the release notes and documentation for the target Kubernetes version. Understand the changes, new features, and any potential impact on your applications. It is recommended to set up a test environment or perform a trial upgrade on non-production workloads to identify any compatibility issues or unexpected behaviors.
2. **Backup and Restore:** Take appropriate backup measures to ensure data safety before initiating the upgrade process. This includes backing up persistent volumes, configuration files, and any other critical data associated with your applications. Having a reliable backup allows you to revert to a previous state in case of any unforeseen issues during the upgrade.
3. **Upgrade Control Plane:** Upgrading the control plane is the first step in the EKS cluster upgrade process. AWS manages the control plane upgrades, ensuring minimal disruption to your workloads. The control plane upgrade involves upgrading the underlying Kubernetes version and associated components. AWS provides guidance and documentation on how to initiate the control plane upgrade process.
4. **Upgrade Worker Nodes:** After upgrading the control plane, you can proceed with upgrading the worker nodes in your cluster. This involves updating the Amazon Machine Images (AMIs) used for your worker nodes with the latest version of Kubernetes. You can use the managed node group feature provided by EKS or update your worker nodes manually, depending on your requirements and preferences.
5. **Monitor and Validate:** During and after the upgrade process, closely monitor the health and performance of your applications. Use monitoring and observability tools to ensure that all components are functioning as expected. Validate that your applications are running smoothly and that any integrations or dependencies are still working correctly.

Conclusion: Regularly upgrading your Amazon EKS cluster is crucial to ensure optimal performance, scalability, and security for your Kubernetes-based applications. By staying up to date with the latest Kubernetes versions and leveraging new features, you can improve the efficiency of your workloads and take advantage of the evolving ecosystem. Following best practices, such as planning, testing, and monitoring, will help minimize risks and ensure a successful upgrade process. By keeping your EKS cluster upgraded, you can maintain a resilient and up-to-date environment for your containerized applications on AWS.

Refer to upgrade notes

 [Amazon EKS Upgrade to 1.22](#)

[Amazon EKS Upgrade to 1.23](#)

[Amazon EKS Upgrade to 1.24](#)

[Amazon EKS Upgrade to 1.25](#)