**Check Compatibility:** Ensure that the Kubernetes version you want to upgrade to is compatible with your application workloads. Review the Kubernetes release notes and any potential breaking changes.

**Backup Configuration:** Before making any changes, it's a good practice to back up your AKS cluster configuration. You can use the Azure CLI or the Azure portal to export the current AKS configuration.

bash

az aks show --resource-group <resource-group-name> --name <aks-cluster-name> --query "addonProfiles" > backup.json

**Upgrade AKS Cluster:** Use the Azure CLI or Azure portal to trigger the AKS cluster upgrade. Specify the target Kubernetes version during the upgrade.

* **Azure CLI:**

Bash

az aks upgrade --resource-group <resource-group-name> --name <aks-cluster-name> --kubernetes-version <new-version>

* **Azure Portal:**
  + Navigate to the AKS cluster in the Azure portal.
  + Click on "Upgrades" in the left-hand menu.
  + Select the desired Kubernetes version and follow the prompts to start the upgrade.

**Monitor Upgrade Progress:** Monitor the upgrade progress using the Azure CLI or Azure portal. You can check the upgrade status and any potential issues during the process.

bash

az aks get-upgrades --resource-group <resource-group-name> --name <aks-cluster-name> --output table

**Update Node Pools (Optional):** If your AKS cluster has multiple node pools, you may need to update each node pool individually. Use the following command to upgrade a node pool:

bash

az aks nodepool upgrade --resource-group <resource-group-name> --cluster-name <aks-cluster-name> --name <node-pool-name> --kubernetes-version <new-version>

**Test and Validate:** After the upgrade, thoroughly test your applications to ensure they function correctly with the new Kubernetes version. Check for any issues or incompatibilities.

**Rollback (if necessary):** If you encounter issues after the upgrade, you may need to consider rolling back to the previous version. Refer to the Azure documentation for rollback procedures.