

## Which KumoScale Deployment Mode Should I Use?

### KumoScale Deployment Modes Available in 3.22

KumoScale software storage services version 3.20 and above supports two deployment modes:

- **Appliance Mode:** This is the same configuration supported in 3.19 and earlier. KumoScale software is installed on an appliance and managed as a storage node within the KumoScale Control Cluster. The KumoScale control plane runs as a Kubernetes-native container set on the storage nodes themselves.
- **Managed Mode using an external Kubernetes control cluster:** In this configuration, KumoScale storage node software is installed on your OS and the KumoScale control cluster is deployed on your own highly available Kubernetes cluster.

### How to Determine Which Deployment Mode is Best for Your Environment

Below are the primary features and differences between each deployment mode to help you determine which mode and configuration to deploy in your environment.

Activity	Appliance Mode	Managed Mode with Kubernetes
Installation	The Kubernetes control cluster is installed from a golden image that includes all KumoScale software.	<ul style="list-style-type: none"><li>• KumoScale storage node software must be compiled and is installed for the customer's exact kernel.</li><li>• KumoScale Cluster Manager Command Line Interface (CLI) must be installed manually.</li><li>• Customers are responsible for installing and supporting their own Kubernetes control cluster. It must be a healthy, highly available cluster configured per best practices.</li></ul>
Control Operators and Provisioning	KumoScale Operators and the KumoScale Provisioner, provisioner pods, are part of the golden image and are installed automatically.	<ul style="list-style-type: none"><li>• KumoScale Operators must be installed manually.</li><li>• The Provisioner pods must be installed and configured manually on the external Kubernetes cluster.</li></ul>
Network Settings	Network settings are configured using KumoScale operators. Users can choose to configure :  Team <ul style="list-style-type: none"><li>• VLAN</li><li>• BGP portal</li><li>• Interface settings (MTU, status)</li></ul>	<ul style="list-style-type: none"><li>• Customers are responsible for configuring network settings <b>before</b> initializing storage nodes.</li><li>• KumoScale Operators and the REST API support setting the portal only.</li></ul>
Storage Nodes	Storage nodes are part of the KumoScale cluster. Nodes can join as master or worker nodes.	The KumoScale storage node is NOT part of the Kubernetes cluster. It is a custom resource managed through KumoScale Operators and the KumoScale Provisioner service running on the customer's external Kubernetes cluster.
Time Settings	KumoScale supports the time settings (NTP, time zone). It is determined by using the KumoScale Operators.	Time settings are the customer's responsibility and can <b>not</b> be set or modified through KumoScale Operators or the REST API.

#### Next Steps

- To learn more about KumoScale version 3.22, review the [KumoScale Release Notes](#)
- To learn more about KumoScale v3.22 installation requirements and procedures, for
  - **Appliance Mode**, see [Installation Guide for KumoScale in Appliance Mode](#)
  - **Managed Mode**, see [Installation Guide for KumoScale in Managed Mode with Kubernetes](#)

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