

Nutanix Karbon

Enterprise Kubernetes Made Simple.

With Karbon running on Nutanix's Enterprise Cloud Platform, IT operations can deliver a production-ready Kubernetes environment on premises with push-button simplicity while preserving a native user experience.

Organizations are rapidly adopting Kubernetes as they undertake large-scale digital transformation projects aimed at improving business agility. While software developers speed ahead leveraging containers, microservices architecture, and cloud-native technologies, IT operations becomes a roadblock as it struggles to deploy and manage the required on-premises Kubernetes infrastructure.

Why? Kubernetes is as complex as it is powerful. Few organizations have the expertise or IT resources to build and manage their own production-ready Kubernetes environments. Kubernetes presents major challenges across cluster configuration, persistent storage, availability, and lifecycle management that can take weeks—even months—to solve. On top of that, Kubernetes evolves rapidly with each release.

Most commercially-available managed Kubernetes solutions are expensive and involve proprietary elements which impact application portability and choice in multi-cloud contexts. In order to fully capitalize on the scalability, agility, and speed-to-market advantages that Kubernetes offers, enterprises need a solution that is simple to operate while preserving the native Kubernetes experience.

“Leveraging Nutanix Karbon, we can deploy a Kubernetes cluster on Nutanix in just a few minutes. Prior to Karbon, this process was complex, tedious, and very time-consuming. Now, we are able to increase business agility and serve our developer on demand with their container requests.”

– Zach Hilliard, Senior Director of SRE
Cyxtera

MANAGED ENTERPRISE KUBERNETES WITH NUTANIX KARBON

Karbon is Nutanix's enterprise Kubernetes management solution that enables turnkey provisioning, operations, and lifecycle management of Kubernetes. Unlike other Kubernetes solutions, Karbon integrates seamlessly with the entire Nutanix cloud-native stack, and dramatically simplifies Kubernetes without vendor lock-in. For Nutanix customers, Karbon is included in all AOS software editions.

Deploy production-ready, multi-master Kubernetes clusters in only a few clicks

Automatically configure and deploy your Kubernetes clusters for high availability (with or without an external load balancer) through a simple, streamlined workflow.

BENEFITS

Simple

- 20 minutes to deploy production-ready Kubernetes clusters
- Public cloud-like operations, on premises
- Automated scaling and upgrades
- Expert technical support covers the entire stack

Complete Solution

- Seamlessly integrates Kubernetes monitoring, logging, and alerting
- Integrated CSI delivers persistent block and file storage

No lock-in

- Native Kubernetes user experience with open APIs

Nutanix Karbon is Kubernetes-certified.



Easily configure persistent storage

Every Karbon Kubernetes cluster is deployed with Nutanix's full-featured CSI driver, which natively integrates with Nutanix Volumes and Nutanix Files to easily provide persistent storage for containerized applications. Nutanix Supports persistent volume Read-Write-Once (Nutanix Volumes & Nutanix Files) and Read-Write-Many (Nutanix Files only) access modes. S3-compatible storage is also easy to set up with Nutanix Objects.

Scale seamlessly, without limit

Add Kubernetes worker nodes with a single click. When additional physical resources are needed, expanding the cluster is just as simple.

Upgrade nodes and Kubernetes versions without downtime

Streamline node operating system patching and upgrade Kubernetes to the latest version with no disruption to production applications.

Monitor, log, and get alerts

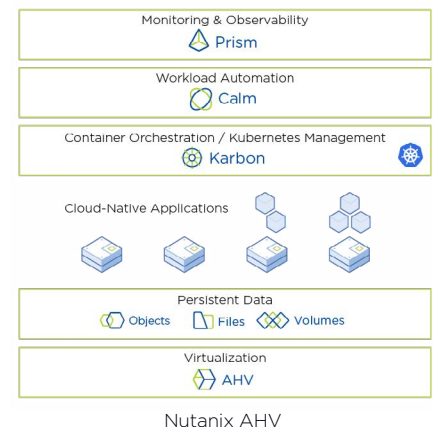
Karbon integrates best-in-class open-source tools for cluster monitoring, logging, and alerting. Prometheus, Elasticsearch, Fluent Bit, and Kibana (EFK stack) are deployed on every cluster.

Get expert full-stack support from a proven vendor

Easily get to the bottom of any technical issue. Nutanix is your single source of technical support for the entire Cloud Native Platform.

BUILD AN END-TO-END CLOUD NATIVE STACK WITH NUTANIX

Karbon is a foundational component of the Nutanix Cloud Native Platform. Through Nutanix's Cloud Native offerings, companies will be able to take advantage of simple, reliable on-premises tooling and automation required for fast development and continuous integration and continuous delivery (CI/CD) of scale-out applications for a cloud-like Kubernetes experience on premises. In addition to simple and fast deployment of Kubernetes with Karbon, customers can leverage Volumes & Files for adding high-performance storage, Objects for S3-compatible backups, and Era for database provisioning and lifecycle management. For those in the process of planning their cloud native strategy, connect with Nutanix for a deep dive into Karbon and our cloud native solutions to understand how to simplify Kubernetes deployments and your entire IT infrastructure and application stack—both on premises and in the cloud.



NUTANIX
YOUR ENTERPRISE CLOUD

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