Kubernetes Managed Support and Services

Containers are a virtualization technology that bundles up an application's source code together with its libraries, dependencies, and configurations, ensuring that the software runs predictably and reliably in any environment. Businesses of all sizes and industries are making use of containers to modernize their legacy IT and simplify the application deployment process. Gartner predicts that by 2027, 90% of global organizations will be running containers in production.

Kubernetes is an open-source technology for container orchestration and management, in particular for clustered database environments. The core concept in Kubernetes is the Pod, a group of containers that simplifies the process of managing their resources and updates. Kubernetes is most useful at managing containers for large, intricate software applications across multiple servers.

You might already be familiar with Docker, an open-source container technology for building and deploying containerized software applications. So what's the difference between Docker and Kubernetes? In fact, the question of Docker vs. Kubernetes doesn't have to be either/or: you can use Docker to create, execute, and share containers, and also use Kubernetes to manage and orchestrate large amounts of Docker containers on a cluster of machines.

Kubernetes Benefits and Use Cases

Nearly any organization can benefit from using Kubernetes. The advantages of Kubernetes include:

- Making your applications and workloads portable between different machines and environments.
- Rapidly scaling containerized applications across multiple servers or multiple clusters.
- Enabling other software development best practices such as CI/CD and DevOps.

Given these benefits, the potential applications of Kubernetes include:

- Migrating your existing legacy applications to the cloud by wrapping them in containers (also known as "lift and shift" migrations).
- Switching from monolithic software to a microservices-based architecture.
- Deploying and managing your Internet of Things (IoT) devices and applications.
- Running high-scale machine learning models in production in cloud environments.

Kubernetes Professional Services with Datavail

Kubernetes can help your business do everything from modernizing your legacy IT to deploying cutting-edge AI and IoT solutions. All of this sounds great—but if you've never used Kubernetes or containerization before, how do you get started?

That's where Kubernetes service providers like Datavail come in. Datavail excels at helping businesses of all sizes and industries with application development and cloud services.

Datavail's list of Kubernetes professional services includes:

Readiness assessment: Datavail offers a Kubernetes readiness assessment for all new clients. Our knowledgeable, experienced cloud experts will analyze your business goals, problems, technologies, and skillsets to make sure you're prepared for the move.

Strategic consulting and roadmaps: Once we've finished the Kubernetes readiness assessment, Datavail offers roadmaps, planning, and strategic consulting to help you get where you need to go, including clear, concrete steps to improve your current IT processes.

Infrastructure optimization: Datavail offers infrastructure reviews and optimization to make sure that your IT architecture is suitable for Kubernetes and built using best practices.

Kubernetes implementation: We can help you implement Kubernetes components such as networking, monitoring, authentication, and security so that you can start running your containers in production.

Automation and orchestration managed services: When Kubernetes is up and running, Datavail also offers ongoing managed services to help automate the tasks of container deployment, management, and scaling, so that you can enjoy high levels of availability and reliability.