



IMAGE: ISTOCKPHOTO/123DARTIST

WHAT IS KUBERNETES?

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BY JACK WALLEN

If you live within the realm of IT, chances are you've heard of [Kubernetes](#). This is especially true if your company is of the enterprise sort. But, if you've managed to duck and dodge your way out of Kubernetes influence, you might be wondering what exactly is this technology. Let me see if I can explain it in simplest terms.

To understand Kubernetes, you must first know that a [container](#) is a distributed application that contains everything it needs to run. Containers are OS- and hardware-independent and are deployed based on images (such as the official NGINX image), which can be pulled from numerous repositories.

With that out of the way, Kubernetes is an open source container orchestration system that is portable, extensible, and not only allows you to deploy those containers to a scalable cluster, but it can be used (with the addition of other tools) to completely automate the orchestration of your containerized applications.

Kubernetes was originally created by Google but is now maintained by the [Cloud Native Computing Foundation](#). Like that single NGINX container you can deploy, with Kubernetes you can turn that container into a massively scaled service that is automatically deployed, updated, scaled up or down, and more.

Kubernetes can be installed in your on-premises data center, or can be run from any number of third-party hosts such as Amazon Web Services, Google Cloud Platform, Azure, and more. With Kubernetes, your enterprise business can become incredibly agile and your applications and services will be exponentially easier to deploy and manage.

However, it is important to remember that without the likes of Docker containers, Kubernetes wouldn't be possible. So before you dive head first into the Kubernetes waters, make sure you first have a solid grasp on deploying containers.

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