EXECUTIVE OVERVIEW

MARKET MAP

Container Management & Orchestration Market Map 2017

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Kubernetes is often prominent among container management and orchestration software, but our research indicates a mixed-use market with many vendors supporting different options and combinations for their customers. This report examines the global container management and orchestration software ecosystem, with a map of the vendors supporting the top enterprise options, as well as analysis of the market dynamics and key players.

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Jay Lyman is a Principal Analyst in the Development, DevOps & IT Ops Channel. He covers infrastructure software, primarily private cloud platforms, cloud management and enterprise use cases that center on orchestration, the confluence of software development and IT operations known as DevOps, Docker and containers. Jay's analysis encompasses evolving IT operations and software release models, as well as the technology used to create, deploy and support infrastructure and applications in today's enterprise and service-provider markets. Key areas of research also include OpenStack, PaaS and enterprise end users.

Key Findings

Our map indicates Kubernetes has more than three dozen supporting vendors; the second most popular options (Docker Swarm and Mesos/Mesosphere Datacenter/Operating System) both have more than two dozen companies supporting them; and even the third-place offerings (Rancher and HashiCorp Nomad) have considerably more than a dozen supporting vendors each.

The early nature of the container management and orchestration software market, the history and current state of enterprise systems management, the modularity of open source software, and the predominance of integration and strategic partnerships all contribute to mixed use of different software options, both together and separately.

Every single one of the top container management and orchestration options in the enterprise is an open source software project.

All of the hyperscale public cloud providers support all of the top five container management and orchestration options in their own container and other services, either officially or through integrations, plug-ins and community support.

In terms of revenue, container management and orchestration software represents the largest sub-segment of our overall container market, ahead of monitoring and logging, data management and services, CI/CD and DevOps, networking, storage, and security.

Executive Summary

INTRODUCTION

Five main options represent the different segments in this global market map: Kubernetes, Mesos/Mesosphere Datacenter/Operating System (DC/OS), Docker Swarm, Rancher and HashiCorp Nomad. When it comes to container management and orchestration software, Kubernetes undoubtedly gets most of the attention. While it is the market leader in terms of momentum and vendor support, enterprises and service providers are still leveraging a number of other options – sometimes in combination with Kubernetes and sometimes independently.

Large organizations across the globe are typically too big to have all of their different divisions, units and developer teams using a single container management and orchestration option. Technical differences and the early nature of container management and orchestration further contribute to this mixed-use reality. Since enterprise systems management software (such as BMC, CA, HP and IBM, and more recently Ansible, Chef, Puppet and SaltStack) historically featured mixed use, it makes sense that container management software would follow suit. Another contributing factor is the open source nature of these projects, which in typical open source fashion are modular, componentized and designed to flexibly work with other software. Even while we see a desire among organizations to standardize, mostly on Kubernetes, end users continue to deploy, and vendors to support, the other main container management and orchestration options.

For those who doubt that any options other than Kubernetes will retain or grow in relevance, we would refer to the public cloud market, and perceptions from only a few years ago that Amazon Web Services was the only option that really mattered. Today, other public clouds, including Microsoft's Azure, Google Cloud, Alibaba and IBM, are still relevant and presenting ample competition to AWS. Therefore, the question may not be settled with Kubernetes alone, but rather with Kubernetes plus whatever other container management and orchestration software makes sense to the variety of end-user organizations in the market.

METHODOLOGY

451 Research Market Maps™ are designed to provide a view of the vendor landscape by major segment. The map highlights companies competing in multiple segments by connecting them through a circuit line. Identification and placement of companies into these segments is based on analysis, both published and unpublished, performed by 451 Research. This analysis includes interviews, reports and advisory work with several thousand enterprises, vendors, service providers and investors annually. 451 Research Market Maps™ are not intended to represent a comprehensive list of every vendor operating in this market. Inclusion on 451 Research Market Maps™ does not imply that a given vendor will be specifically featured in one or more 451 Research reports.

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