



Cisco Workload Optimization Manager

Help ensure application performance while increasing data center efficiency

Overview

Applications are the lifeblood of your business, and their performance depends on efficient allocation of data center resources. Manual assignment of workload placement, resource capacity, and configurations can leave your business at risk of delays. What if resource assignments are inadequate? Should you place the workload on your premises or in the cloud? If demand suddenly increases, how quickly can you respond?

Cisco® Workload Optimization Manager is a self-managing solution that helps ensure application performance by optimizing the configuration, capacity, and placement of infrastructure resources. Market-based algorithms automatically match workload demand with the right amount of resources located on the most cost-efficient platform. Detailed full-stack visibility helps you understand why decisions were made and the associated cost efficiencies of those decisions. Workload Optimization Manager makes adjustments concurrently with fluctuations in your business without disrupting the lifeblood of your business: your applications.

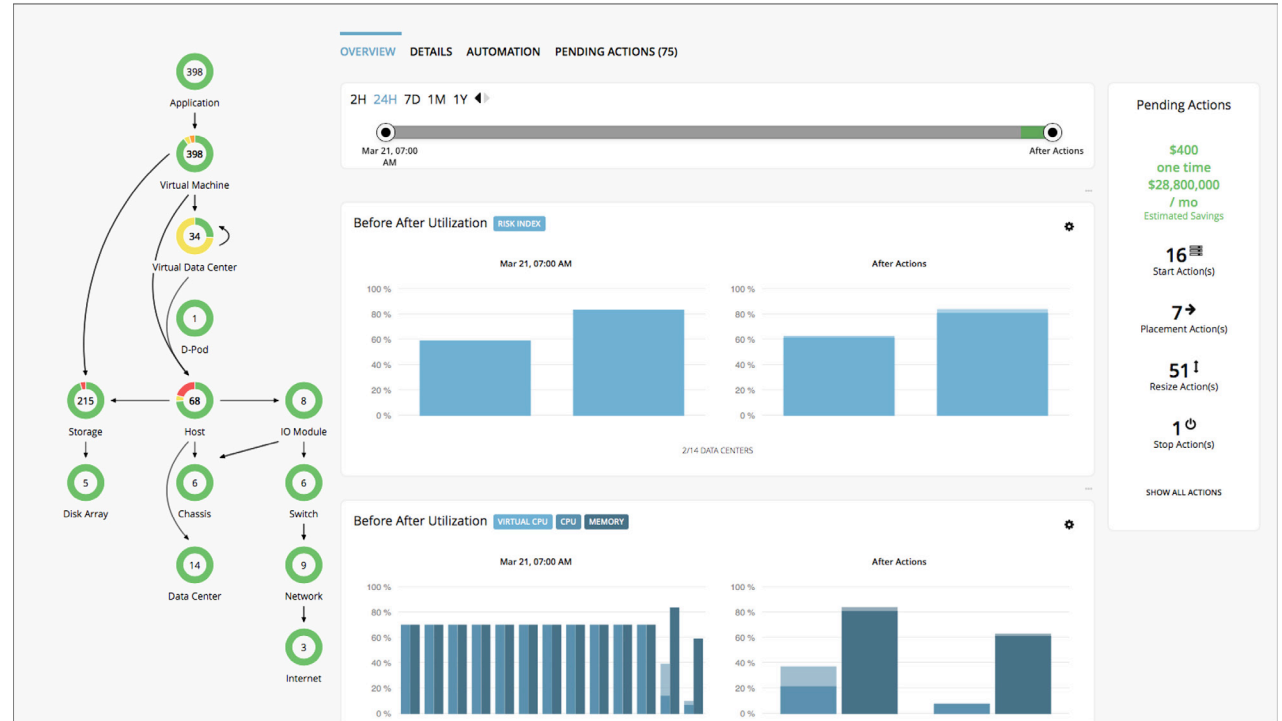
Benefits

- Help ensure application performance through real-time allocation of resources based on workload demand.
- Reduce the need for capital expenditures through reclamation and utilization of stranded infrastructure resources.
- Compare prices of top-to-bottom configurations for on-premises and public cloud environments.
- Increase workload density of on-premises resources by 25 percent.
- Achieve 30 percent better performance from Cisco Unified Computing System™ (Cisco UCS®) deployments.

“IT leaders are realizing the need for dynamic optimization technology because of the rapid expansion of cloud services and the desire to contain costs or reduce risk.”

Gartner
February 2017

Figure 1. Cisco Workload Optimization Manager delivers a complete analysis of Cisco UCS Domain in 1 hour



What if you could be confident that your applications will always have the right amount of infrastructure? We use real-time insights to automatically help ensure that applications have the right resources at the right time.

Dynamic optimization

Digitalization is changing the nature of competition and making continuous innovation a necessity. With the rapid expansion of cloud services and the desire to contain costs and reduce risk, organizations need a more dynamic, automated solution that optimizes data center resources in real time. Known as dynamic optimization, this technology uses telemetry, algorithms, service and resource analytics, and policies to implement real-time automated actions that reduce waste, cost, and risk while meeting service levels.

The goal of this technology is to match the demand for IT services with the right infrastructure to provide the best mix of resources for your applications. Dynamic optimization balances application placement with utilization, service level, and a mix of data center resources. It can also size virtual instances appropriately by turning off virtual machines that are not being used.

How it works

Your data center is like a market. Workloads consume resources from a shared pool of finite resources. Workload Optimization Manager abstracts the data center stack, from applications to infrastructure, into a common data model: a supply chain of buyers and sellers. Market-based algorithms apply the principles of supply, demand, and price across virtualized and cloud environments, delivering self-managing capabilities to workloads and infrastructure. The complexity of your data center is transformed into a continuous exchange of computing, storage, and network resources between buyers and sellers that helps ensure both that your applications get the resources they need and that your data center is running at peak efficiency. This approach has been proven to help ensure application performance while optimizing utilization of data center resources ranging from 300 to more than 75,000 virtual machines.

Whether your workloads are on your premises or in a public cloud or operate across a hybrid mix of both, Workload Optimization Manager uses these market principles to configure, place, and scale workloads. The cloud-independent abstraction allows workloads to migrate across on-premises and cloud platforms on the basis of performance and cost efficiency.

How to buy

Workload Optimization Manager is an offer within Cisco ONE™ Enterprise Cloud Suite. This suite is composed of five offers. Each offer can be used individually, or all components can be used together to create an integrated hybrid cloud solution. All components were designed to work together, providing your business with an incremental journey to hybrid cloud automation. The offers are summarized here:

- Infrastructure Automation delivers all-inclusive provisioning and management of physical and virtual resources across computing, network, storage, and virtualization infrastructure.
- Cloud Management abstracts applications from their underlying cloud environments, allowing modeling of the application into a single profile that can be deployed in 20 different data centers, on your premises or in public clouds.
- Service Management provides a unified self-service portal to deliver a consumer-like customer experience for IT and business services. The built-in scripting solution enables automation of business processes such as trouble-ticket management and custom Configuration Management Databases (CMDBs) in each automated service.
- Big Data Automation delivers a single-touch solution that automatically deploys Hadoop clusters residing on Cisco UCS Common Platform Architecture. Unified management across physical infrastructure and Hadoop software reduces complexity and the amount of time needed to deploy Hadoop clusters.
- Workload Optimization delivers the capabilities described here for Workload Optimization Manager.

The Cisco advantage

Data centers are being challenged to deploy applications faster, with greater efficiency and lower costs. Applications are the core engines of your business and are essential to your ability to keep pace with the market and competitors. With Workload Optimization Manager, customers achieve ROI in less than 90 days and experience a 37 percent increase in application performance. And this solution can be installed in one hour and begins to deliver actionable intelligence in less than five days.

Custom call to action

Workload Optimization Manager addresses a real challenge: how to keep on-premises and cloud environments healthy and operating at peak performance. It uses the power of supply-chain economics to deliver ROI-centric, proactive, scalable autonomic management. For additional information about Workload Optimization Manager, contact your Cisco sales representative.

Use cases

Use Case	Description
Data center modernization	When you are refreshing or renewing your infrastructure platforms, Workload Optimization Manager can accurately determine how much hardware is needed to meet real-time demand. After the refresh or renewal process is completed, Workload Optimization Manager will constantly assess the demand being served to the architecture. It will then present, in real time, a decision to provision new capacity to help ensure performance when business demand changes.
Data center optimization	Workload Optimization Manager adjusts the configuration, placement, and capacity of data center resources in real time to help ensure optimal performance with the greatest cost efficiency.
Hybrid cloud optimization	Workload Optimization Manager helps ensure that the right workload is placed in the right location to help provide the highest performance at the lowest cost.

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