

WHITEPAPER

# Deploy Application-Aware Infrastructure

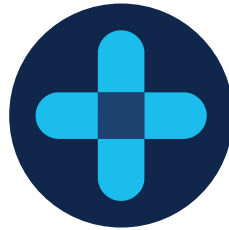


# Deploy Application-Aware Infrastructure

With Cisco Workload Optimization Manager and Cisco AppDynamics



**Optimal performance**



**Accurate forecasting**



**Adaptable deployment**

## IT infrastructure should never be the reason for poor application performance.

For many organizations, applications are the business. They are also more dynamic and complicated than ever before, with many parsed into services and microservices, deployed across hybrid and multicloud estates, or modernized and migrated. Delivering an exceptional digital experience in a blended workload environment requires application and IT infrastructure teams to focus on what matters most: helping ensure that applications always perform, whether they are deployed in traditional data centers or complex multicloud environments.

Being successful requires eliminating infrastructure as the cause of application performance problems. The combination of Cisco® Workload Optimization Manager and Cisco AppDynamics® uses application performance metrics to drive better decisions so that your IT infrastructure can be more application aware and adapt to the needs of your business-critical applications.

## Benefits

- **Deliver high performance** by ensuring applications have the right resources at the right time.
- **Quickly model** what-if scenarios based on real-time environments to accurately forecast capacity.
- **Adapt deployment** with visibility across your network, data center, compliance, and applications for improved understanding and placement.

## Cisco AppDynamics

Cisco AppDynamics helps businesses deliver consistently flawless digital experiences by connecting end-user experience and application performance to business outcomes. AppDynamics monitors, correlates, analyzes, and acts on application and business performance data in real time. This automated, cross-stack intelligence enables developers, IT ops, and business owners to make the mission-critical and strategic improvements that win customers at every moment. This superior level of insight allows them to watch every line of code and understand its impact on user experience and application performance, while providing real-time insight into your digital business.

## Cisco Workload Optimization Manager

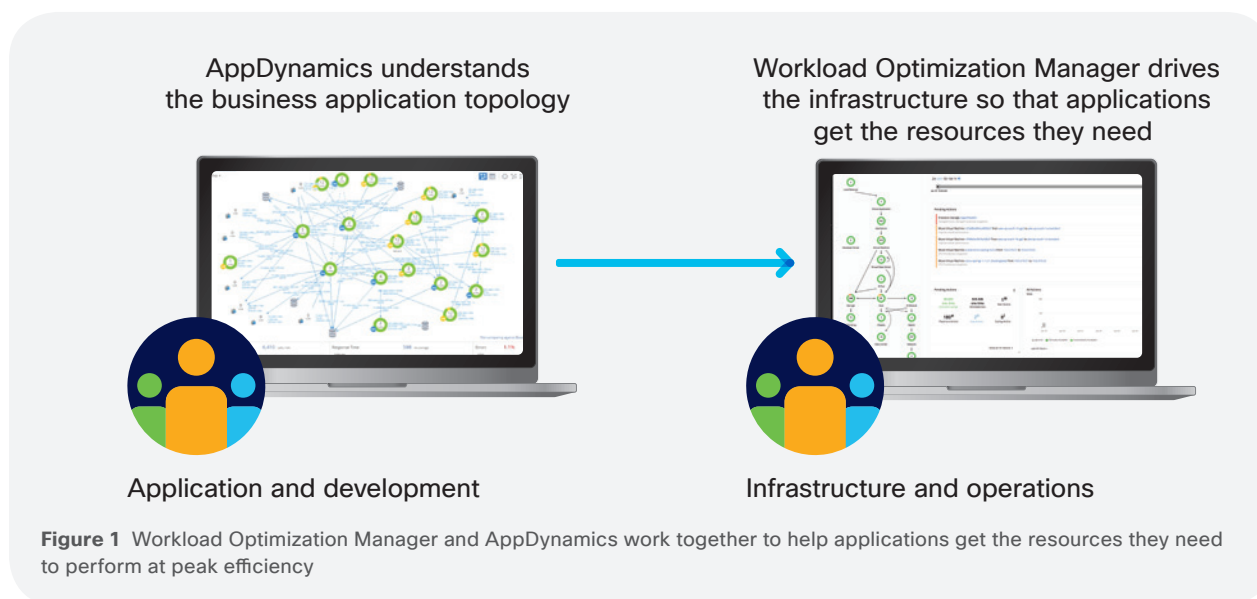
Cisco Workload Optimization Manager is a real-time decision engine that continuously assures applications have the resources they need to perform. This intelligent software continuously analyzes application resource consumption, costs, and compliance constraints to automatically allocate resources in real time. This helps ensure that your applications have the resources they need when they need them.

## How it works

Cisco AppDynamics discovers and maps your business application topology and how it uses IT resources. Cisco Workload Optimization Manager takes this information and connects it to your data center stack (Figure 1). Once connected, Workload Optimization Manager orchestrates and drives actions in your IT environment to help ensure that application components get the computing, storage, and network resources they need for workload placement, capacity, and scaling. Together, these intelligent tools replace sizing guesswork with real-time analytics and modeling so that you know how much infrastructure is needed to allow your applications and business to keep pace with demand.

## Benefits

- **Assure application performance.** Workload automation reduces the risk of poor application performance due to IT infrastructure, without overprovisioning resources.
- **Show IT's value to the business.** Infrastructure resource decisions are directly tied to the performance of business-critical applications.
- **Bridge the application infrastructure gap.** Full-stack automation elevates teams, and full-stack visibility provides a common understanding of application dependencies.
- **Accelerate application migration.** A holistic understanding of application topology, resource usage, and the data center stack reduces risk in application migration projects.



Application performance relies on well-written and properly architected applications getting the resources they need when they need them. Cisco Workload Optimization Manager and Cisco AppDynamics provide the insights needed to better size and place data center resources as well as to support capacity planning, helping ensure that workloads continue to perform (Figure 2).

## For more information

- [cisco.com/go/workloadoptimization](https://www.cisco.com/go/workloadoptimization)

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## Your deployment your way

You need to be able to develop and deploy your applications on the infrastructure that makes sense for your programmers, users, and budget. AppDynamics allows your teams to connect with the platforms they need using popular programming languages such as Java, .NET, Node.js, PHP, Python, C/C++, and more. Agentless Workload Optimization Manager technology detects all the elements in your environment, from applications to individual components, and delivers a global topological mapping of the environment and its interdependent relationships. Your teams can quickly model what-if scenarios based on the real-time environment to accurately forecast capacity needs and make deployment decisions.

## Conclusion

No matter how you deploy your applications, Cisco solutions can help you deliver cost-efficient quality of service. Our powerful, intelligent solutions can automatically scale workloads, storage, and databases in real-time to assure performance and free your IT staff to focus on other initiatives. The level of automation is up to you—teams can automate the software's decisions according to their level of comfort: recommend (view only), manual (select and apply), or automated (executed in real time by software). Our solutions can help you get started on the journey to optimal application performance and more efficient IT operations.

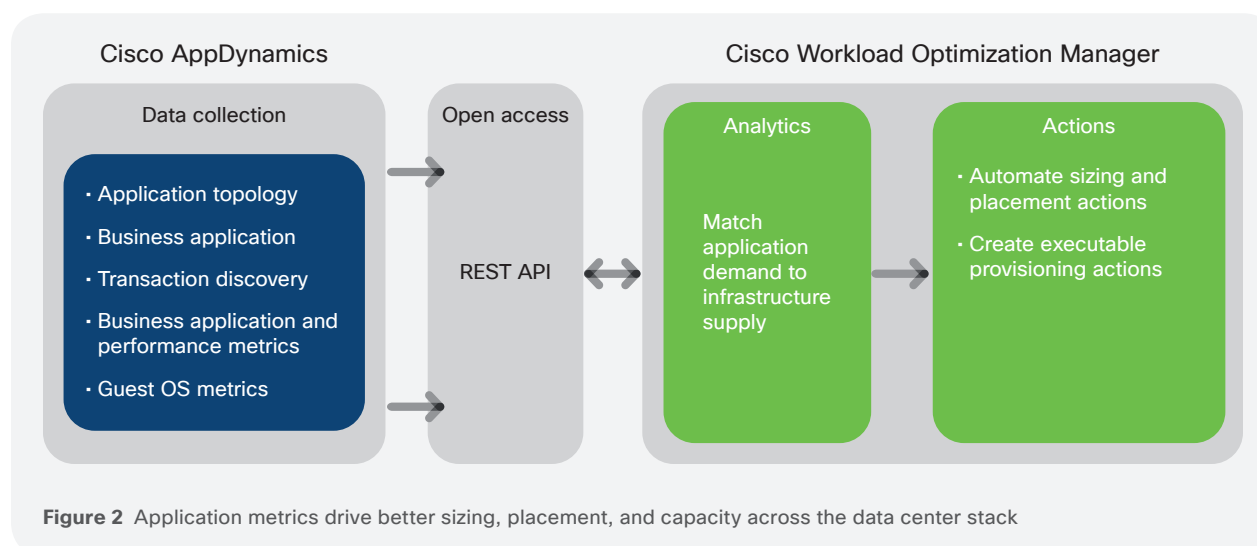


Figure 2 Application metrics drive better sizing, placement, and capacity across the data center stack