



# Ensure Application Performance

With Cisco Workload Optimization Manager and Cisco AppDynamics

Your applications need to perform to deliver the best customer experience. With Cisco<sup>®</sup> solutions, they can.

Today's app-driven, end-user-centric economy creates a challenging dynamic for your IT organization. Ensuring application performance not only influences customer experience, it has a direct effect on business outcomes. Modern application architectures, microservices, and multicloud environments make it nearly impossible to manage application and infrastructure complexity at scale without intelligent and automated intervention. That's why many organizations use Cisco Workload Optimization Manager and Cisco AppDynamics<sup>®</sup>.

With this powerful combination, your application and IT teams can:

- Gain visibility into user experiences and business conversion
- Trust actions that continuously optimize your infrastructure to deliver application performance
- Get insight into infrastructure bottlenecks and factors that increase costs

## Highlights

- **Visibility** into application and infrastructure interdependencies
- **Insight** from real-time analytics powered by artificial intelligence (AI) to help ensure the right resource decisions for application performance
- **Action** through automation that implements decisions and automatically allocates resources in real time

## Cisco AppDynamics

Our smart approach to performance management allows you to connect application performance and user experiences to business outcomes. With AppDynamics you can actively monitor, analyze, and optimize complex application environments at scale, and correlate and act on performance data in real time. By tapping into automated, cross-stack intelligence, you get deep visibility into your multicloud environments, from the end user to the application and infrastructure. You can pinpoint and fix application issues and understand the effect of code on user experience, application performance, and your business. You can even visualize revenue paths for better business insight.

## Cisco Workload Optimization Manager

Cisco Workload Optimization Manager is a real-time decision engine that drives continuous health of your applications across your on-premises and cloud environments. The intelligent software continuously analyzes workload consumption, costs, and compliance constraints and automatically allocates resources in real time to support application performance. You can determine when, where, and how to move and resize workloads, maximize elasticity with public cloud resources, and quickly model infrastructure and workload growth scenarios to determine how much infrastructure you will need and when you will need it.

**IT infrastructure should never be the reason for poor or slow application performance.**

**Cisco AppDynamics and Cisco Workload Optimization Manager provide complete visibility and insight into application and infrastructure interdependencies and business performance. The result is application-aware IT infrastructure that is continuously resourced to deliver business objectives.**

AppDynamics provides visibility into the business application topology



Workload Optimization Manager continuously optimizes IT resources to help ensure application performance



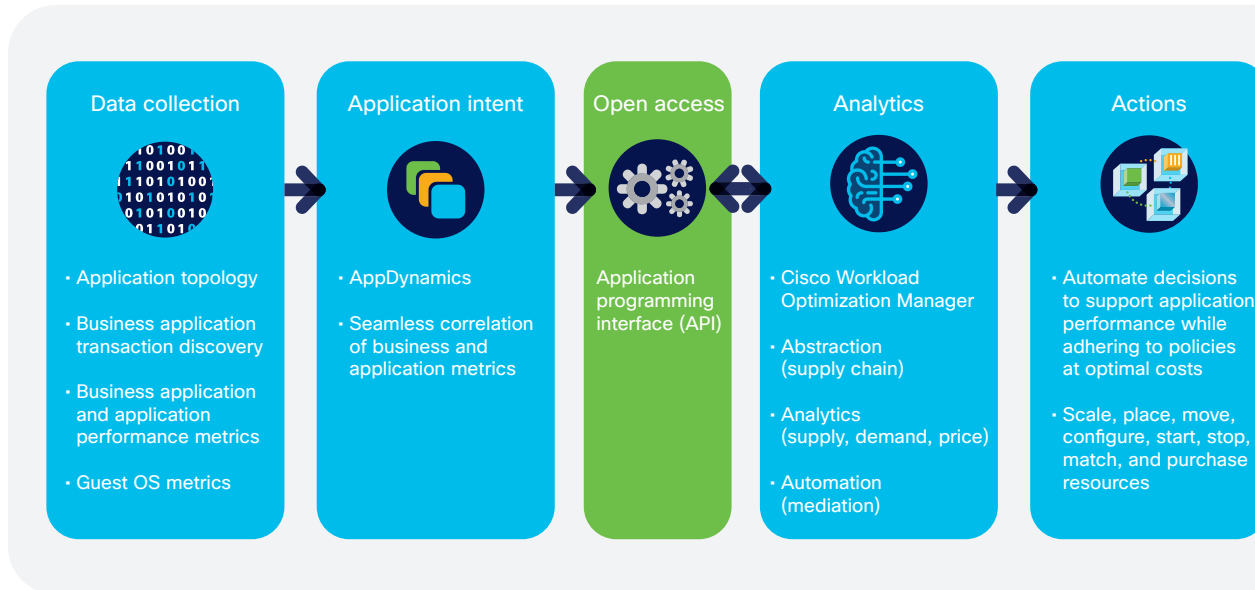
## Application-driven approach

Our solutions take a top-down approach to deliver excellence. You get the insight you need to power your digital transformation, helping ensure that your customers, partners, vendors, and employees have a better experience on an ongoing basis.

The transformation doesn't stop there. With our solutions, your IT staff can align their efforts with customer priorities, improve IT and business agility, and deliver better application performance. Your developers can deliver applications that are architected and designed to run well—and your IT operations teams can help ensure that these applications have continuous access to the physical, virtual, and cloud resources they need to perform.

## Built-in application resource management

AppDynamics and Workload Optimization Manager use awareness and intelligence to provide the right resources to applications at the right time. AppDynamics baselines application and business performance and identifies and flags changes in application performance that are the result of underlying resources constraints. This information is shared with Cisco Workload Optimization Manager so that the software can make informed resourcing decisions and adjustments. With a common understanding of horizontal (application) and vertical (full stack) dependencies, the solutions can better align IT infrastructure to best power your application performance.



## How it works

**Visibility** into business performance, user experiences, and the underlying technology stack allows application demand to drive the right infrastructure action. Telemetry obtained through AppDynamics provides insight into meaningful metrics, such as application response times and service-level objectives (SLOs), to make more informed decisions on how to apply and use IT resources.

**Insights** are driven by AI-powered analytics that stitch together each layer of the application and infrastructure stack. Resourcing decisions are tied to application demand and relevant policies and constraints while factoring in available capacity. This ensures the best use of all resources through trustworthy decisions that can be automated in real time or integrated with existing approval workflows. The more the software knows, the smarter it gets, and the better the decisions it makes about resources.

**Actions** are supported by an advanced analytics engine that consumes data sources from each layer of the local or cloud stack through APIs: application-level telemetry, infrastructure metrics, and cost and discount mechanisms. These metrics are used to generate trustworthy decisions that can be automated to prevent performance degradation on a continual basis.



“Because of how intelligent the system is, Cisco Workload Optimization Manager saves our teams a lot of time, especially our IT people. Automation means our 24/7 team doesn’t have to work 24/7. Now that they aren’t constantly putting out fires, we can put that talent to work thinking about the future.”

**Filipe Frasquilho**

Business development manager,  
IP Telecom

[Read the story.](#)

## Put intelligence to work

Access to real-time data and automation is the foundation of continuous application performance. AppDynamics and Workload Optimization Manager use advanced methods and metrics to make better decisions and optimize actions.

### Deep infrastructure resource analysis

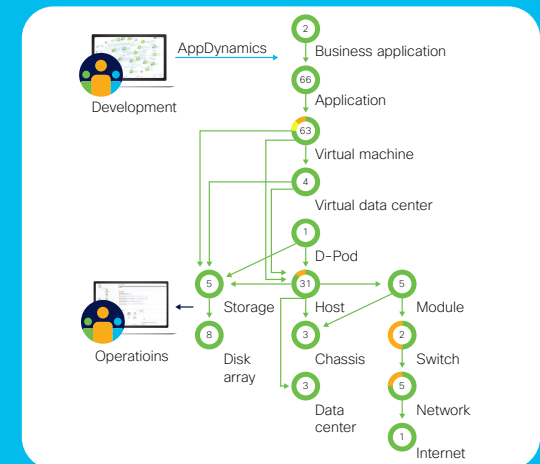
techniques use agentless discovery mechanisms that are easy to deploy and activate whether using on-premises or cloud resources. Application demands are monitored and prioritized. Virtual servers, containers, public cloud instances, and more are analyzed to eliminate guesswork and determine the actions that will have the biggest impact on application response times.

**Decisive infrastructure actions in real time** take the guesswork out of allocating resources and support sizing and scaling initiatives. Your IT staff can have confidence that your IT infrastructure will expand and move resources to where they are needed most as workload demands fluctuate. The solutions allocate only what is needed, eliminating the need to overprovision and overspend. And, the software can assign available resources, provision new resources, and decommission and reuse resources without compromising the performance of other applications running in your environment.

### Closed-loop infrastructure optimization

in Workload Optimization Manager maps on-premises and cloud resources to the business applications discovered by Cisco AppDynamics. Trustworthy actions are derived and can be implemented manually or automatically without human intervention or interpretation to accelerate response times. Response times are re-evaluated by AppDynamics to validate that performance is restored and business metrics have returned to baseline levels.

The software’s approach, combined with a unified view of all applications, helps reduce mean time to repair (MTTR) and helps ensure application performance during periods of fluctuating demand. Whether your applications run on premises or in the cloud, infrastructure diagnostics and immediate, proactive remediation help reduce the number of war room situations your IT staff is likely to experience.



## Unify teams and tools

Many organizations are hindered by silos of application developers, IT operations staff, and disparate management tools. AppDynamics and Workload Optimization Manager bridge this gap by allowing your teams to access the same information so that they can speak the same language. With the same visibility into applications, IT infrastructure, and data, your teams can simplify their toolset, eliminate fingerpointing, and identify and solve the root causes of application performance issues.

## Save on IT infrastructure

Many IT organizations overprovision resources as a stopgap measure to help ensure sufficient resources are available during times of peak demand. These additional capital expenditures and operational expenses can wreak havoc on IT budgets and are not a long-term solution to the performance problems caused by constrained infrastructure capacity. And when manual processes are used, your IT staff may find that IT consumption has changed and strategies may no longer apply by the time a solution is identified.

AppDynamics and Workload Optimization Manager intelligently correlate application metrics with underlying IT infrastructure capacity. When the demand for resources begins to create performance degradation at the application level, the software makes

decisions to alleviate constraints and prevent performance issues. These decisions can be enacted before a perceived performance degradation and can be automated as well.

## Work across hybrid and multicloud deployments

If your data center is like most, your IT resources continue to increase in complexity. Continuously evolving technologies, services, and options require a new approach to resource management. AppDynamics and Workload Optimization Manager make it easy to implement all types of clouds for better business agility.

Deep integration with Cisco's multicloud portfolio, as well as with ecosystem partner solutions, allows the software to use the data that is already being gathered by these solutions to understand the performance and interdependencies of your applications and infrastructure. In addition, self-managing container platforms and intelligent automation that abides by IT and business policies help ensure that actions taken in real time account for licensing, data sovereignty, governance and enforcement, high availability, affinity, and anti-affinity rules and policies. As a result, your IT staff and users can tap into multicloud resources in a way that aligns with your needs, including data location, security, compliance, cost, and flexibility—and ensure applications perform as expected.



## Advantages realized

IP Telecom uses Cisco Workload Optimization Manager to pinpoint resource inefficiencies and automate decisions.

Results:

- Improved performance by eliminating workload spikes, identifying overworked systems, and redistributing resources
- Reduced software license costs
- Reduced resource requirements for Microsoft solutions by 30 percent and VMware environments by 15 percent

[Read](#) the story.

## Learn more

Discover how AppDynamics and Workload Optimization Manager can help you do more in real time.

- [Cisco AppDynamics](#)
- [Cisco Workload Optimization Manager](#)

## Optimize application performance

Ensuring application performance 24x7 is a challenging task, particularly if every step of the monitoring and management process is manual. That's why many IT teams overcompensate for new applications and deploy more CPU, memory, I/O, and network resources than are needed. Although having extra resources reduces the likelihood that application performance will degrade, doing so often is in conflict with business mandates to reduce IT costs.

AppDynamics and Workload Optimization Manager simplify and support application and infrastructure optimization processes. Developers can work with IT operations staff to baseline performance metrics. These parameters can be monitored by AppDynamics and shared with Workload Optimization Manager to facilitate application deployment. The data helps determine where applications should reside during runtime, helping your IT staff safely maintain performance

and tightly pack workloads together. The result is a higher level of data center efficiency that supports optimal application performance.

## Seeing is believing

It can be eye opening to see what an automated exploration of your application stack reveals that you may not have considered when you made implementation decisions. When your application hierarchy is combined with insight regarding the resource consumption of each component the value of these solutions becomes immediately apparent.

In our experience, when we demonstrate these solutions in real customer environments, the benefits become more clear than words on a page can ever be. Contact your Cisco sales representative and ask how you can see AppDynamics and Workload Optimization Manager in action. Your application performance and its impact on business goals will exceed your expectations.