



# Bridge Your Applications and Infrastructure

With Cisco Intersight Workload Optimizer

**We make sure your applications have continuous access to the right resources so that your business can perform.**

With more people accessing your business through a digital experience, your business outcomes are directly tied to the user experience. Finding ways to connect IT resources and application performance to business outcomes is difficult as applications become more distributed, diverse, and interdependent. Modern application architectures, microservices, and multicloud environments, combined with silos that create gaps between business, DevOps, and operations teams, make it nearly impossible to manage applications and infrastructure complexity at scale and expose the business to unnecessary risk. Whether you run your applications on premises, in the cloud, or both, Cisco Intersight™ Workload Optimizer can help you bridge the gap between your applications and IT infrastructure and continuously optimize your environment to support better business outcomes.

## Highlights

- **Visibility** into the entire infrastructure stack helps you understand application resource needs based on demand at every layer.
- **Insight** from AI-assisted analytics keeps application performance optimized with real-time decisions
- **Actions**, which can be applied manually or automatically, are recommended to ensure workload performance.

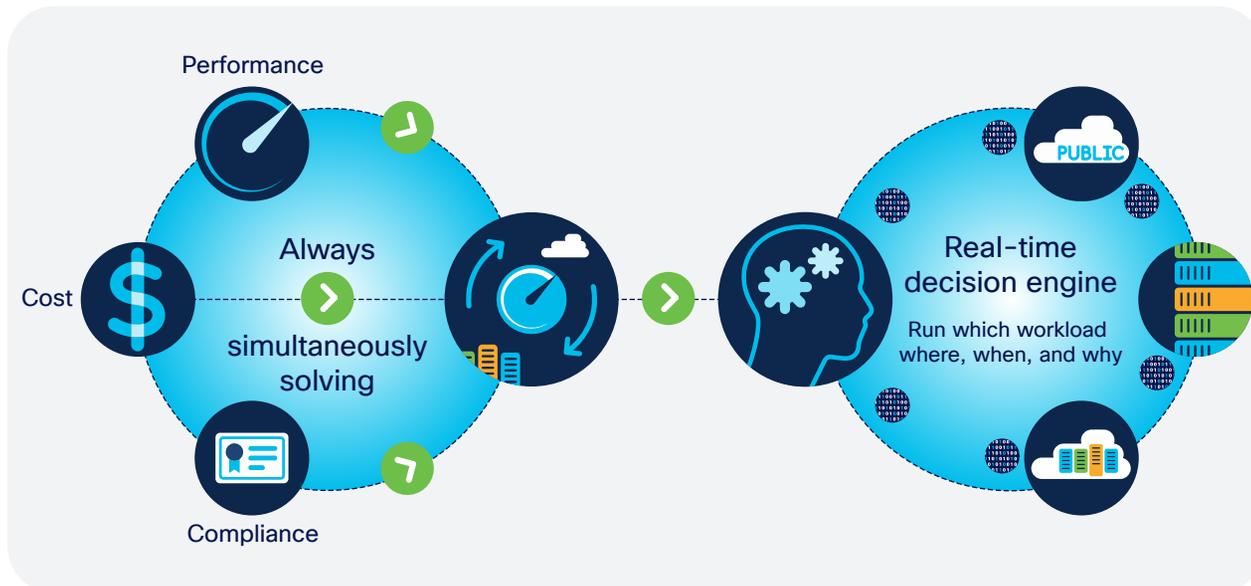
## Cisco Intersight Workload Optimizer

Cisco Intersight Workload Optimizer provides the visibility, real-time analytics, and automation needed to optimize IT infrastructure and deliver application performance. This real-time decision engine drives continuous health in your IT systems by continuously analyzing workload consumption, costs, and compliance constraints and matching them to IT resources in real time to prevent performance bottlenecks. The software determines when, where, and how to move and resize workloads, allocates and reallocates resources as needed, and maximizes elasticity with public cloud resources to assure that your workloads always perform as expected.

### Application-driven approach

Our solution takes 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.

- 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 designed and architected to run well.
- Your IT operations teams can be assured that your applications have continuous access to the physical, virtual, and cloud resources they need to perform.



## Extending the power of Cisco Intersight

Organizations are weighted down by too many tools, many of which can't provide the right information or a holistic view of the data center. Cisco Intersight radically simplifies the steps needed to deploy and maintain a healthy infrastructure foundation on your premises, at the edge, or across your global enterprise.

Now, Cisco Intersight Workload Optimizer extends the capabilities of Cisco Intersight, adding application resource management capabilities and support for a broad third-party ecosystem. With this powerful solution, you can have confidence that your applications have continuous access to the IT resources they need to perform, whether they reside on premises or in a public cloud.

## Visibility

The siloed approach of traditional monitoring solutions gives IT teams a bottom-up view of infrastructure resources but not the applications they run. Similarly, applications teams see what is happening to applications, but not the underlying infrastructure. When problems arise, these disjointed views result in fingerpointing and the inability to quickly identify root causes and make changes to underlying infrastructure to ensure application performance.

Cisco Intersight Workload Optimizer gives your infrastructure and application teams a consistent, unified view. Within the solution, agentless technology detects relationships and dependencies between the components in your environment, from applications through the infrastructure layers. Within one hour of deployment Cisco Intersight Workload Optimizer delivers a global topological mapping of your environment (local and remote, and across private and public clouds) and the interdependent relationships within the environment, mapping each layer of the full infrastructure stack to application demand. As a result, your IT, DevOps, and business teams can trust a solution that:

- Sees the virtual and physical infrastructure constraints that affect the user experience
- Drives the right infrastructure actions
- Accesses meaningful metrics, such as application response times and service-level objectives (SLOs) and makes informed decisions on how to apply and use IT resources

## Insight

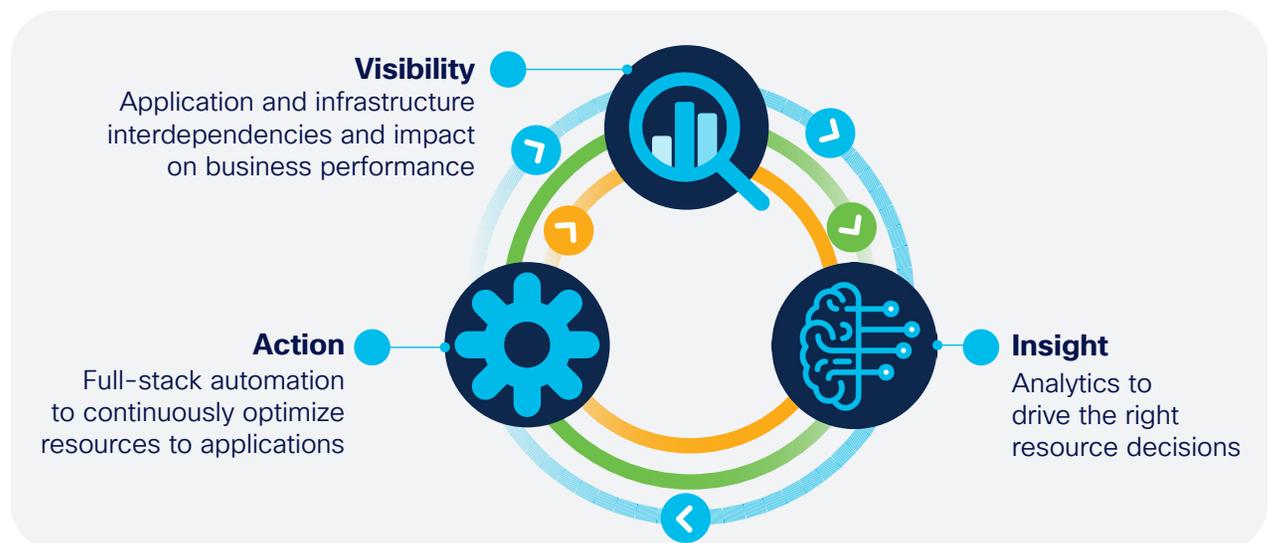
Easy access to data visibility across different domains allows your application and infrastructure teams to tap into contextualized and correlated insights to better collaborate and take strategic actions to ensure superior digital experiences for your users. And with support for a broad, third-party ecosystem, the software gets even smarter as it gathers intelligence across your environment to ensure the best recommendations for allocating IT resources.

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.

## Action

Cisco Intersight Workload Optimizer can take real-time actions that help ensure workloads get the right resources at the right time. You can automate the software's decisions according to your level of comfort: recommend (view), manual (select and apply), or automated (executed in real time by software). These actions include:

- Automating workload placement, scaling, and capacity to drive continuous health and assure performance while maximizing efficiency
- Quickly modeling what-if scenarios based on real-time conditions to forecast capacity needs
- Automatically scaling workloads, storage, and databases in real time to assure performance
- Tracking, reporting, and viewing trends for computing, storage, and database consumption metrics across regions and zones

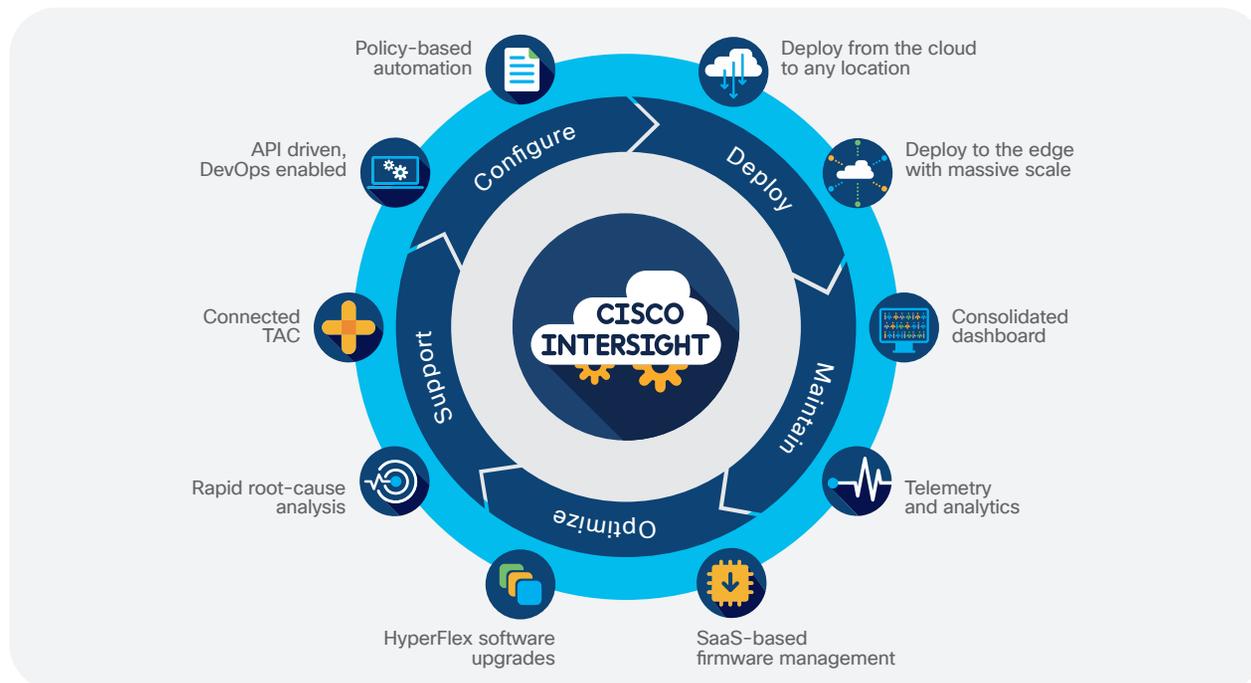


## The power of automation

Extending Cisco Intersight with Cisco Intersight Workload Optimizer lets you bring the power of a software-as-a-service (SaaS) approach to both your infrastructure and application management initiatives. You can translate your intent—what you want to accomplish—into infrastructure and application configuration, ongoing management, and proactive optimization—to unite, simplify, and automate your management experience.

- **Infrastructure lifecycle management:** Cisco Intersight Workload Optimizer draws on the power of Cisco Intersight to help ensure that the infrastructure resources deployed are exactly what your applications need to perform.

- **Simplified deployment:** Our solution reduces the complexity and manual effort required to deploy, upgrade, and maintain the servers, hyperconverged infrastructure, and cloud resources that your applications run on.
- **Fast application development and delivery:** Easy deployment of cloud and microservices technologies support agility, iteration, and a DevOps model that delivers innovation.
- **Continuous optimization:** Automated, analytics-powered infrastructure optimization dynamically right-sizes resources to application demands before your IT staff and users experience a bottleneck.



Cisco is the only company that can build a real-time bridge between application performance and infrastructure operations. With a 360-degree approach and visibility into applications and data sources, we can automatically take action to intelligently optimize underlying infrastructure to ensure your applications perform.

## Connect your applications to users and outcomes

Cisco Intersight Workload Optimizer works with Cisco AppDynamics™ to further enhance and connect insights to the end-user experience and business outcomes. This is accomplished by sharing data-driven application insights with Cisco Intersight Workload Optimizer.

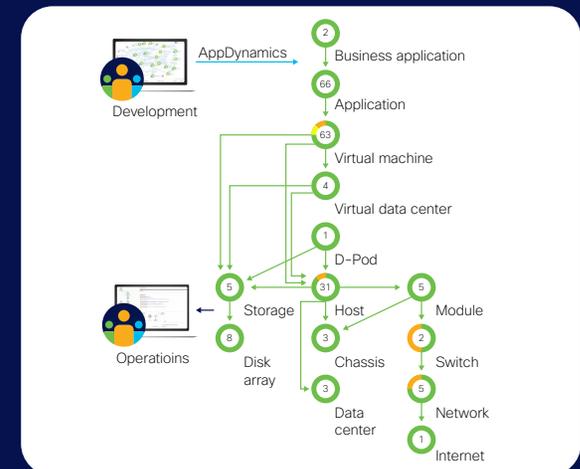
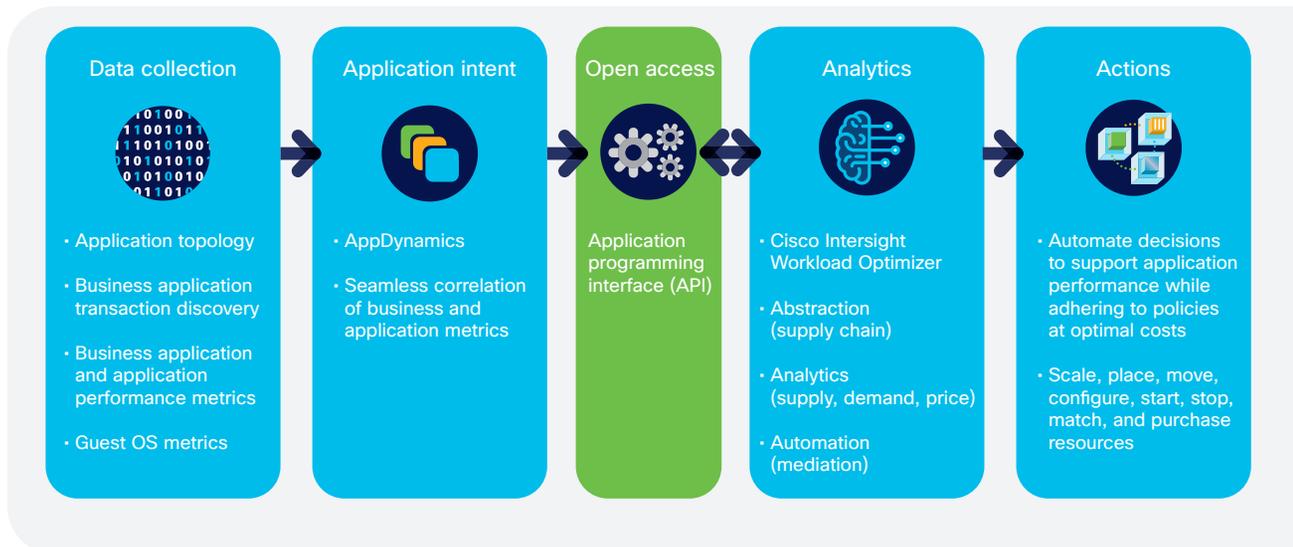
AppDynamics baselines application and business performance and identifies and flags changes in application performance that are the result of underlying resources constraints. This information is shared with Cisco Intersight Workload Optimizer so that the software can make informed resourcing decisions and adjustments. 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. 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.

Decisive infrastructure actions in real time take the guesswork out of allocating resources and supporting sizing and scaling initiatives. Your IT staff can have confidence that Cisco Intersight Workload Optimizer 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 Cisco Intersight Workload Optimizer 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 metric 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.



## Learn more

Digital business transformation increases both the dynamic complexity and the volume of workloads, seriously challenging your IT organization's capability to deliver cost-efficient quality of service. Cisco Intersight Workload Optimizer makes the right resource decisions at the right time, so you don't have to. With this innovative solution, you can have confidence that your workloads will continuously perform, while maintaining compliance and minimizing cost.

To learn more, visit:

- [Cisco Intersight Workload Optimizer](#)
- [Cisco AppDynamics](#)

## Optimize your multicloud deployments

Kubernetes is the new infrastructure standard for modern microservices applications. It gives developers the means to create better applications and services faster. For IT teams, it creates a more dynamic and complex environment. Cisco Intersight Workload Optimizer adds essential capabilities to Kubernetes deployments so that workloads can be smart and self-managed. The platform simultaneously optimizes performance, compliance, and cost in real time while ensuring that workloads get precisely the resources they need when they need them. The software:

- Automates pod rescheduling to assure performance
- Autoscales clusters intelligently to implement elastic infrastructure
- Unites DevOps infrastructure with full-stack control

### How it works

Cisco Intersight Workload Optimizer determines the right actions to drive ongoing health, including continuous placement for pods and continuous scaling for applications and the underlying cluster.

By using Cisco Intersight Workload Optimizer, you can deliver on the promise of Kubernetes.

- Unified workload automation controls Kubernetes clusters across multicloud environments.
- Minimal human intervention is required, with no thresholds to set.
- Intelligent cluster scaling safely maximizes infrastructure.
- Continuous optimization of performance, compliance, and cost allows you to accelerate your cloud-native initiatives.
- Full-stack control unites DevOps teams and infrastructure.
- The solution supports Red Hat OpenShift and is certified on Red Hat Enterprise Linux.

## Broad ecosystem support

Cisco Intersight Workload Optimizer works with the industry's top platforms, including VMware vSphere, OpenStack, Citrix XenServer, and Microsoft Hyper-V hypervisors, Kubernetes, Red Hat OpenShift, and Cloud Foundry, to create self-managing and optimized container environments that minimize human intervention, reduce outages, and unite your DevOps and infrastructure teams.