

Cisco CloudCenter Solution with AppDynamics

Intelligent application orchestration across environments

Application architectures are evolving. They now consume services from multiple data center and cloud environments, making it harder to ensure quality of service with infrastructure-focused metrics alone. To meet expectations, IT organizations need intelligent application orchestration that combines business relevant application performance monitoring with automated application orchestration, and that works seamlessly across environments.

The Cisco CloudCenter™ solution with AppDynamics allows enterprises to seamlessly deploy, monitor, and optimize applications as part of both traditional data center and multicloud strategies.

AppDynamics automatically monitors applications, discovers and baselines end-to-end Business Transactions so IT teams can instantly identify and remediate business impacting performance bottlenecks. The Cisco CloudCenter solution provides application-centric orchestration that works across data center and cloud environments.

Together, these solutions go beyond infrastructure monitoring and automation. They provide deep visibility and intelligent alerting with automated application-centric responses, helping organizations avoid quality-of-service problems that affect the business. They simplify the application lifecycle and can even help identify code and workload issues that, if left unresolved, may increase costs and reduce performance.

Benefits

- Accelerated lifecycle: Automate application deployment with integration of monitoring agents.
- Business relevance: Monitor metrics throughout the application ecosystem including Business Transactions.
- Reduced costs: Right-size applications to consume “just enough” resource to help ensure performance.
- Developer feedback: Deliver granular data to identify code issues that may affect performance or cost.
- Quality of service: Respond to emerging problems before the business is impacted.

Challenges

Every company is a software company. Businesses need to innovate quickly to stay ahead of the competition. They need to be able to release new application features at a rapid pace.

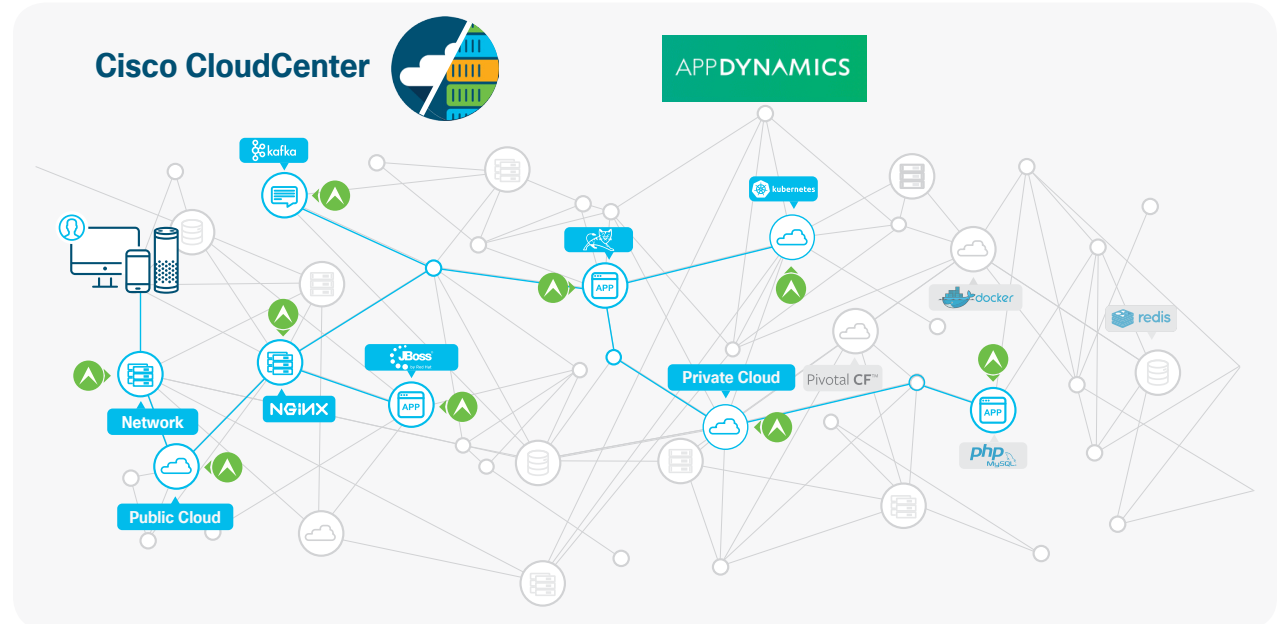
To increase the speed at which new features can be introduced, developers are building applications that are increasingly complex and that use application services and infrastructure resources that are distributed. That makes it harder to balance quality of service with optimized costs across an evolving landscape of infrastructure and cloud resources.

IT operators need to monitor the entire application ecosystem—not just the infrastructure level—to respond intelligently to changing conditions that may affect business outcomes. DevOps teams need more detailed, interrelated metrics and performance data to troubleshoot code issues that may be reducing performance or wasting underlying infrastructure resources.

But infrastructure monitoring coupled with a manual response to changing conditions is not sufficient to address application demands in the multicloud era.

The Cisco CloudCenter solution with AppDynamics delivers intelligent application orchestration that meets the needs of the increasingly complex and demanding application landscape (Figure 1).

Figure 1. Deploy, monitor, and optimize applications as part of a data center or multicloud strategy



Intelligent application orchestration

- **Deploy:** Seamlessly deploy applications and agents with unified monitoring and governance.
- **Monitor:** Baseline key performance metrics, identify emerging issues that may affect the business, and take the right action before quality of service is affected.
- **Optimize:** Automate changes that improve application performance and identify code and workload issues to reduce resource consumption and costs.

Cisco CloudCenter and AppDynamics solution

The AppDynamics suite of application and business performance monitoring solutions helps ensure that every part of even the most complex applications ecosystem—infrastructure, individual services, and business outcomes—are optimized for performance, cost efficiency, and quality of service. The Cisco CloudCenter solution provides an automated and cost-effective way to deploy and manage a changing mix of applications and deployment environments.

Cisco CloudCenter software

The Cisco CloudCenter platform is subscription software delivered as a packaged application. Deployment does not require a long professional services engagement. Many customers achieve a successful proof-of-concept deployment or deploy their first application in just days, not weeks or months.

AppDynamics software

AppDynamics is available as managed software as a service (SaaS), or it can be deployed on premises. After agents are deployed, application flow maps are made available within minutes. AppDynamics supports a wide variety of technologies across public, private, and hybrid environments including Cisco Unified Computing System™ (Cisco UCS®) or Cisco HyperFlex™, Amazon Web Services (AWS), Microsoft Azure, Red Hat OpenShift and Pivotal Cloud Foundry.

For more information

- [See Cisco.com/go/cloudcenter](https://www.cisco.com/go/cloudcenter).
- [See www.appdynamics.com](https://www.appdynamics.com).

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Together, the Cisco CloudCenter solution and AppDynamics provide intelligent application orchestration, including:

- **Seamless deployment:** Users can self-service application deployment through the Cisco CloudCenter solution with everything needed for AppDynamics to monitor the application ecosystem. The Cisco CloudCenter application profile is modeled to include AppDynamics agents without the need for the user to have any special skills or knowledge.
- **Performance baseline:** The AppDynamics App iQ platform immediately registers the newly deployed application and automatically baselines infrastructure, application, and business-centric metrics. It can identify normal operating conditions and sets self-learned baselines thresholds to identify emerging problems.
- **Automated response:** AppDynamics health rules determine when to send an alert to the application owner, and when to trigger the Cisco CloudCenter solution to intelligently and automatically respond to changing conditions.
- **Optimized resources:** The Cisco CloudCenter solution seamlessly deploys and load balances application instances to maintain application performance and optimize resource utilization.
- **Optimized code:** AppDynamics compares every application release from both technical performance and business perspectives to identify potential code improvements.

- **Single view:** Visualize the entire application-delivery ecosystem, including infrastructure, databases, application tiers, user experience metrics, and Business Transaction times. Navigate from the global view of a distributed application down to the graphs and exception reports generated on individual hosts.

Application types and technologies

Cisco CloudCenter and AppDynamics both work with custom and commercially available applications that have traditional multitier architectures, cloud-native or hybrid service-based architectures. Application deployments can include configuration tools such as Chef and Puppet as well as containers. They support popular programming languages such as Java, .NET, Node.js, PHP, Python, C/C++, and more.

Data center and cloud environments

The Cisco CloudCenter solution works with VMware vSphere, OpenStack, Microsoft Azure Pack, and Microsoft Azure Stack on Cisco Unified Computing System™ (Cisco UCS®) or Cisco HyperFlex™ infrastructure on premises. It also supports more than 10 public-cloud types, including Amazon Web Services (AWS), AWS GovCloud, Microsoft Azure, Microsoft Azure Government Cloud, Google Cloud Platform, Alibaba Cloud, Dimension Data, IBM SoftLayer, Rackspace, and VMware vCloud Air.