

CA Unified Infrastructure Management for Cassandra



At a Glance

As organizations become more reliant on their Cassandra™ databases to run business-critical applications and services, the performance of these complex environments grows increasingly vital. With CA Unified Infrastructure Management (CA UIM, formerly CA Nimsoft Monitor), enterprises and service providers gain the comprehensive monitoring coverage they need to efficiently track the entire Cassandra ecosystem and proactively optimize its performance. Plus, it provides a centralized interface for monitoring the infrastructure that supports Cassandra, such as network devices, operating systems and more.

Key Benefits/Results

- **Unified visibility.** Incorporate Cassandra monitoring into a central platform that can track all the environments that matter to your business.
- **Improve service levels.** Leverage insights and alerts that help your team detect and resolve issues faster and address issues before service levels take a hit.
- **Reduce cost and complexity.** Harness the comprehensive capabilities that can reduce the costs associated with buying and supporting multiple complex tools.
- **Minimize administrative effort.** Capitalize on automated alarm management and pre-packaged reports and dashboards that dramatically reduce the effort associated with set up and ongoing maintenance.

Key Features

- **Comprehensive coverage.** Get performance metrics on all the key elements of the Cassandra framework and any supporting infrastructure.
- **Powerful, timely insights.** Get automated alerts, trending reports, predictive analytics and real-time intelligence that offer the insights you need, when you need them.
- **Customizable reports and real-time dashboards.** Leverage pre-packaged, easily customizable reports and dashboards. Quickly and easily adapt views to specific roles and objectives.

Business Challenges

For companies in virtually every industry and region, it is becoming an increasingly urgent imperative to manage large, dynamic data sets—and to do so reliably and cost effectively. It is for these reasons that many leading businesses have deployed the Cassandra database.

With Cassandra, organizations can leverage an open source database that enables organizations to use commodity hardware while achieving high levels of fault-tolerance, performance and scalability. To deliver these qualities, Cassandra runs multitudes of nodes within clusters, which significantly increases the complexity of the environments IT administrators need to manage.

This complexity poses significant challenges for the administrators responsible for optimizing service levels. How do you track performance across all the nodes in operation, as well as the complex ecosystem of hardware and networking equipment these systems rely on? With so many inter-reliant components, how do you quickly determine whether service levels are on target, and, if not, where the issue is?

Solution Overview

CA UIM represents a comprehensive IT management platform that provides the capabilities administrators need to track and optimize the performance of their Cassandra environments. Further, the product offers the combination of centralized visibility, ease of deployment and operation, and architectural efficiency that can significantly reduce the cost and effort associated with Cassandra administration.

Without CA UIM, monitoring Cassandra can be a time consuming and complex activity. Depending on the scope of the deployment, dozens or hundreds of clusters and thousands of nodes can be operating simultaneously. Further, even if a point solution has been employed to track all these elements, still other tools would be needed to track the associated infrastructure elements. Beyond the up-front cost and effort of implementation, these tools require substantial ongoing effort associated with manual data aggregation, analysis and reporting. With CA UIM, you can eliminate or substantially reduce all this cost and effort. The platform itself is easy to deploy and manage, and it enables you to automatically generate the views and insights you need to manage the environment.

CA UIM equips you with a single, unified platform that enables you to monitor and control your entire IT environment. With the platform you can gain timely alerts and insights that help you speed issue detection and resolution, spot ways to pre-empt issues and institute tactics for ongoing optimization.

Critical Differentiators

Comprehensive coverage of Cassandra and beyond

To effectively track Cassandra performance, your administrators need to be able to gain visibility into all the elements that make up the environment, including nodes, clusters, master daemons and more. With CA UIM, you can uniformly track these complex and dynamic environments. Further, CA UIM provides out-of-the-box support for more than 140 device types—including servers, databases, applications, network devices and cloud services. As a result, you can leverage your monitoring investment to centrally track all the elements that support the Cassandra ecosystem—and the rest of your business.

Efficient, resilient architecture

The CA UIM architecture is based on a unique message bus that uses a publish/subscribe framework. This architecture inherently enables scalability, high availability, extensibility and rapid deployment. By standardizing the

communication between components for data collection, data aggregation and data analysis, the architecture provides a single and extensible implementation across all computing environments. With CA UIM, there is no stitching together of multiple products and solutions as with many other alternatives.

Optimal ease of use and efficiency

CA UIM offers the speed and ease of use associated with point solutions, featuring a unique architecture with a lightweight footprint. At the same time, the solution delivers enterprise scalability and multi-tenancy. Further, through its extensible monitoring coverage, CA UIM enables customers to add monitoring of new technologies and environments, without having to make new product, staffing or training investments. With CA UIM, IT operations can reduce the time and cost associated with monitoring, while business and IT management can gain the insights needed to optimize resources, planning and investments.

Timely, powerful insights

CA UIM offers all the capabilities you need to ensure that your team can gain maximum insights from the monitoring data captured:

- **Alarm management.** CA UIM helps IT organizations reduce the time it takes to troubleshoot problems by consolidating events from various devices, servers and

applications and providing the ability to automatically assign alarms to the right IT staff.

- **Dashboards.** CA UIM delivers pre-packaged dashboards that provide real-time views of IT and business services. Dashboards can easily be tailored to specific users, groups and roles, enabling users to see practically any type of data in a single view—including help desk call statistics, application performance metrics, IT resource utilization and much more.
- **Reporting.** With CA UIM, you can easily develop reports based on any monitoring data captured by the solution. This includes not only Cassandra elements but internal servers and networking equipment, virtualized infrastructures, SaaS offerings, cloud-based services and outsourced environments.
- **Predictive analytics.** With CA UIM, administrators can tap into predictive analytics that provide such metrics as time it will take to exceed a threshold, violate a service level agreement and more.

Granular, extensive coverage of Cassandra environments

CA UIM offers availability, health check and basic up/down tracking of all key elements in Cassandra environments, offering key performance metrics for such aspects as keyspace, JVM, column family, storage volumes and more.

For more information, please visit ca.com/uim

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