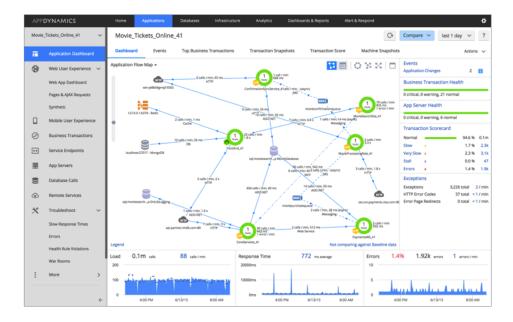# The next generation of application performance monitoring for your Node.js applications

Get to the root cause of performance bottlenecks in your Node.js applications with the AppDynamics Application Intelligence Platform. With AppDynamics, you can drill down into process-wide stack traces to diagnose performance bottlenecks in your mission-critical Node.js applications – all while running in a live production environment.

The new world of distributed web applications has created a whole new set of challenges for those tasked with ensuring Node.js application performance. With the shift toward service-oriented architectures (SOA) and microservices, Node.js applications now operate in rapidly changing environments. As a result, performance problems surface that are often difficult to identify, diagnose, and fix.

As these applications become increasingly critical to the business, it's more important than ever to have a simple yet fast way to monitor, diagnose, and resolve application problems before they affect revenue.

AppDynamics allows you to monitor your Node.js applications in production so you get real-time visibility of performance and can find the root cause of code bottlenecks in seconds, all with minimal overhead. The root causes of performance problems can be very different and complex to locate, while the result is usually simple - a slow or unavailable web site. AppDynamics reveals the internals of your application and infrastructure through process-level code visibility and proactive monitoring enabling detailed analysis, fast troubleshooting, performance and capacity optimization. We allow companies to monitor, troubleshoot, and diagnose their production applications, gaining 10x their current level of visibility and getting to root cause 90% faster.

KEY BENEFITS

– Distributed transaction correlation provides you insight into key metrics behind your distributed environment. Find the root cause with pinpoint accuracy behind transaction slowdown within even the most complex SOAs

– Process Snapshots allows you to dive deep into the code execution at a multi-process level so you find the root cause of slow code-execution in minutes

– Database Monitoring allows you to monitor popular data stores like Redis, Memcache, Riak and MongoDB as well as relational databases like MySQL and PostgreSQL

– Complete visibility into real user experience across both web and mobile applications, with real-time information on browser, network and server performance

"AppDynamics has been a critical tool during the migration of our legacy applications to Node.js. It has allowed us to quickly prove out performance, diagnose any bottlenecks and easily predict infrastructure needs [at scale, for scaling, for growth]."

Stace Baal, Director Engineering eHarmony

eHarmony®

Key Node.js support

– **Application errors**

  – Transaction and backend errors

  – Unhandled exceptions: shows errors within the business transaction snapshot

– **Process and transaction call graphs**

  – Call graphs generated for the entire process or individual transactions to help you find resource-intensive and event-blocking operations.

– **Critical runtime metrics**

  – Monitor your Node.js runtime; including CPU performance, network & disk I/O, event loop & GC behavior, error rates, and memory/heap activity.

– **Transaction tag and follow**

  – Understand end-to-end transaction flows in highly distributed application environments.

– **Memory leak diagnostics**

  – Solve memory leaks with better insight into heap activity related to object counts, size, and call graph allocation.

Key APM features

– **Business transactions:** automatic detection, response time, calls per min, slow, very slow, stalls

– **Transaction snapshots:** code level diagnostics showing complete call graphs and code execution, policy-based collection available

– **SQL statement visibility:** prepare statements, remove sensitive data

– **Application flow map:** visualize application dependencies

– **End user experience management:** browser diagnostics correlated with server-side diagnostics

– **Real-time analytics:** automatic baselining and scoring of application and transaction performance

– **Distributed transaction tracing:** correlation of distributed transactions from multiple tiers

– **Performance:** low overhead and designed for extremely high traffic production applications

– **Change detection:** record application change events like deployments and upgrades

– Process snapshots showing complete code execution among multiple processes

– Custom dashboards help your team understand the health and performance of your Node.js application in record speed

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SUPPORT MATRIX

– **Node.js Versions:** 0.8, 0.10, 0.12, 4.0, 5.0

– **OS:** Linux, Mac OSX, Windows

– **Database Monitoring:** Redis, MongoDB, MySQL, PostgreSQL, Sqlite, Riak, Cassandra

– **Cache Monitoring:** Memcached, Redis, Couchbase

– **Queue Monitoring:** AMQP, RabbitMQ, ActiveMQ

– **External Calls:** HTTP, file system

– Compatible with almost all major Node.js Frameworks

"Nodetime was a core component to our Node.js monitoring and the new AppDynamics for Node.js agent is helping make our deployment of our new Node.js applications into production a real success for our company."

Carlos Ruiz, Architect
Edmunds.com

Try it FREE at appdynamics.com