



Company

Insight, Inc. (NASDAQ: NSIT)

Industry

Technology Solutions Provider

Location

Global

Challenge

24x7 code-level visibility into a complex, high-traffic production environment to spot performance issues early before they become problems

Application Environment

Highly Distributed J2EE



Requirements

Manage application performance in a high-traffic production environment to:

- Provide real-time 24x7 transaction coverage and capture with code-level visibility
- Proactively spot performance issues early before they become expensive problems
- Automate labor-intensive processes to raise productivity

Solution

dynaTrace Production Edition

enables Insight to quickly identify, diagnose, and resolve performance issues in a high-traffic production environment by:

- Providing real-time 24x7 transaction coverage and capture
- Quickly finding and analyzing performance bottlenecks
- Delivering root-cause-diagnostic data to developers
- Enabling the development of a "Production Early Warning System"
- Providing deep visibility into applications to streamline code
- Finding database and other redundant calls causing performance problems

"Before dynaTrace our performance data consisted of averages and samples, but we had no visibility into outliers which were the main issue. Finding their root-cause was difficult to impossible."



Insight, a Fortune 500 company, is a technology solutions provider serving global and local clients in 170 countries. Today, thousands of clients, including more than 80% of the Global Fortune 500, rely on Insight to acquire, implement and manage technology solutions to empower their business. Insight provides software and licensing services globally, and offers a comprehensive portfolio including hardware and value added services for their clients in North America and the U.K.

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Challenge: As one of the world's largest software resellers (among many offerings) and member of the Fortune 500 with over \$4.8 Billion in revenue, Insight averages millions in sales every day. This sales volume is supported by a SOA-based production environment that powers both Insight.com and internal systems processing massive transaction volumes every day. On average, each transaction hits at least 8 systems in Insight's distributed production environment making performance management a complex – and growing – challenge.

"We have a highly-distributed, high-volume production environment. Each transaction hits multiple systems as it executes, so it's challenging to tie everything together," explains Jeevan Bobbili, Director IT eCommerce, Insight.com.

"Before dynaTrace our performance data consisted of averages and samples, which provided no visibility into outliers which were the main cause of performance issues. Finding their root-cause was difficult to impossible."

"Before dynaTrace our methods of issue detection and root-cause investigation were lengthy and involved," said Bobbili. "Immediately after a production issue, we'd collect pre- and post-incident state information, which took a lot of time. In addition to the effort of collecting the data, we were also challenged with the various formats that the data was presented in – further lengthening the process of obtaining any useful information."

Solution: After a thorough competitive review, Insight selected the dynaTrace [Production Edition](#) as the only solution that could deliver the 24x7 transaction-level visibility and performance diagnostics for their distributed, complex production environment. dynaTrace's Continuous APM platform with [PurePath](#) gives Insight's production managers, architects and developers a common framework and dataset with which they can quickly and efficiently identify, diagnose, and resolve application performance issues.



Figure 1: Operations Dashboard view

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“We found 18 bottlenecks in the PoC alone. We quickly identified all the outliers that caused people to say our site was slow, which had been impossible to track down before.”

“One of the first questions management asks whenever something comes up in the EWS is ‘What are we seeing in dynaTrace.’”

“Our code base includes very complex objects that were being re-used very often – many of which were re-used too often, which lead to performance issues. With the visibility dynaTrace gives us, we’ve been able to redesign the objects to be much leaner.”

“We saw it immediately once we started drilling deeper in dynaTrace’s PurePath into the database issues. Had we not poked into the additional information in the PurePath it easily might have been another 2-3 days before we might have figured it out.”

“dynaTrace takes what used to be at least a half-hour of debate, and gives us documented proof in seconds. 30 minutes of downtime for our app can cost millions – in lost revenue, opportunities and reputation.”

“I enjoy the fact that I’m able to provide mission-critical information about real-time transactions in a production environment. [dynaTrace] is very easily customizable and it’s got my back 24x7.”

“It helps us automate many of our production processes, enabling us to do more without adding headcount. dynaTrace is like having another co-worker watching over things with us who can see everything at once.”

Results: Bobbili’s team particularly liked dynaTrace’s always-on production transaction tracing across their system’s multiple tiers. “dynaTrace actually gave us the ability to observe and capture real-time transaction processing in a highly-complex environment,” said Bobbili. “We now have full visibility into our production environment so we can quickly and easily identify any bottlenecks.”

Insight’s initial review included a “Proof-of-Concept” (PoC) in which dynaTrace quickly installed its Continuous APM solution on Insight’s system and began producing results the same day. “We found 18 bottlenecks in the PoC alone,” said Bobbili. “We quickly identified all the outliers that caused people to say our site was slow, which had been impossible to track down before.”

Proactive Early Warning: dynaTrace has enabled Insight to become more proactive in managing performance. “One of the dynaTrace features we rely on most heavily is the ability to go in and create and control incidents and warnings,” said Bobbili. “Management is very interested in this.” Bobbili’s team created a **“Production Early-Warning System”** with dynaTrace’s alerts, with warnings on lengthy transaction times and other key metrics that help them spot issues early before they become expensive problems. “One of the first questions management asks whenever something comes up in the EWS,” said Bobbili, “is ‘What are we seeing in dynaTrace?’”

Rapid Improvement: Before implementing dynaTrace, Insight’s engineers had been able to improve performance using log correlation and other manual techniques, but these were time-consuming and only yielded performance improvements of 100mS per month. “In the first weeks using it 24x7 in production,” said Bobbili “the complete visibility dynaTrace provided helped us gain over 10 seconds in performance improvement.”

Enabling More Efficient Code: “Our code base includes very complex objects that were being re-used often – many of which were re-used too often, which led to performance issues,” said Bobbili. “With the visibility dynaTrace gives us, we’ve been able to redesign the objects to be much leaner.” The code-level visibility provided by dynaTrace enabled Insight to re-architect much of their system, eliminating inefficiencies such as redundant SQL calls. Finding all those redundant calls, for example, helped eliminate 500mS in performance per call.

For instance, issues with product data had been troublesome, particularly with certain equipment connecting to databases (Fig. 2). “We were getting no response, nothing seemed wrong,” said Bobbili, “it was a real head-scratch as to why transactions were so long.” Then Insight began using dynaTrace’s database-calling instrumentation. “The problem was with the SQL server database being called,” explained Bobbili. “We saw it immediately once we started drilling deeper in dynaTrace’s PurePath into the database issues. Had we not poked into the additional information in the PurePath it would have easily been another 2-3 days before we might have figured it out.”

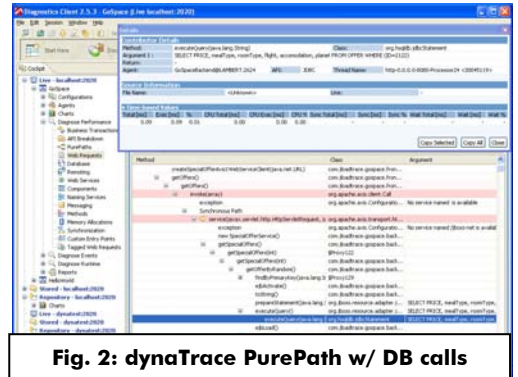


Fig. 2: dynaTrace PurePath w/ DB calls

An additional PurePath value comes from the documented evidence it provides. “dynaTrace takes what used to be at least a half-hour of debate, and gives us documented proof in seconds,” said Bobbili. **“30 minutes of downtime for our app can cost millions – in lost revenue, opportunities and reputation.”**

The 24x7 confidence dynaTrace provides helps Bobbili and his team sleep easier at night. “I enjoy the fact that I’m able to provide mission-critical information about real-time transactions in a production environment,” said Bobbili. “I also enjoy the fact that the system is up 24x7. I have to sleep at some time, and occasionally have other tasks to attend to, so it’s been good to know that dynaTrace is there. It’s very easily customizable and it’s got my back 24x7.”

Perhaps most importantly, dynaTrace helps Insight do more with less. “It helps us automate many of our production processes, enabling us to do more without adding headcount,” concluded Bobbili. “dynaTrace is like having another co-worker watching over things with us who can see everything at once.”