

Transaction management

POWER TO PERFORM

Most transactional problems are reported by users, not discovered by IT. So wouldn't your organisation benefit from transaction performance management? Jason Stamper reports.

The trouble with the typical IT department," says Precise Software's CEO Mark Kremer, "is that it is organised into tiers: the database, the servers, the application servers and so on. But those tiers are not transaction aware. You can optimise the database but does the transaction run better? The business couldn't care less about how IT is organised – it cares how well its transactions are being handled."

Precise Software has just passed its first year independent once again, and Kremer claims it is seeing business boom.

The company has a tangled history: it went public in 2001 but was acquired by Veritas in June 2003 as the storage management firm sought to expand beyond its core market into all kinds of performance management.

But when Symantec bought Veritas in December 2004 it didn't see the application performance management technology as key to its secure information management strategy, and in January 2008 Symantec spun the unit out again, selling it to Vector Capital, a San Francisco-based private equity firm.

Explaining the move, Symantec's Greg Butterfield, interim group president, storage and server management group, said: "Selling

the APM business will allow the storage and server management team to focus on securing and managing information." Precise Software Solutions was back.

Today, with about 220 staff, and 1,500 customers worldwide, Kremer believes Precise is the largest independent company focused on the space he calls transaction

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performance management. But what is the segment all about?

"In the '90s everyone was doing ERP," says Kremer, "and they needed to start to assess whether these systems were working properly; application performance management was born. Today, managing the performance of the individual systems is much better understood, so the focus has moved. Companies' IT systems are even more sophisticated and, in many cases, customers are interacting directly with the company's IT.

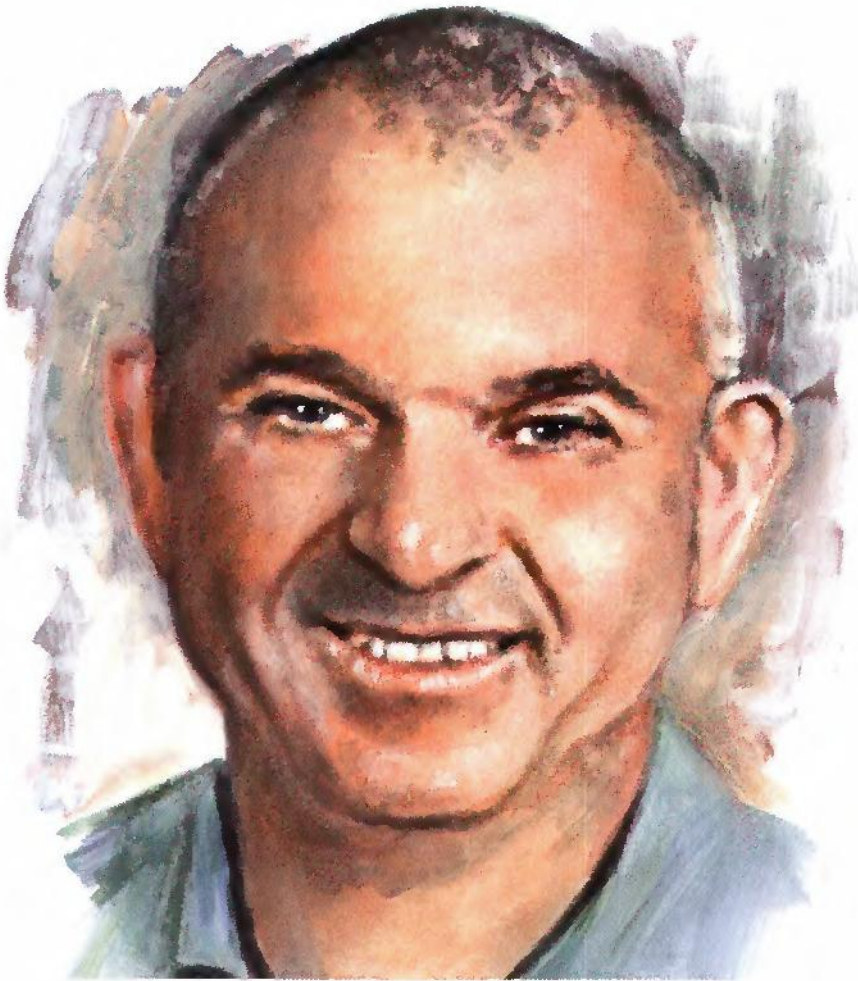
"It's moved from machine performance to transaction performance. Transactions are where companies live and breathe, and also where they can die if they get it wrong," says Kremer.

Natural evolution

Since it was founded in 1989, Precise Software has evolved as its customers have come up against different kinds of management challenge. It began focusing on J2EE and .Net performance but, by the '90s, it was managing the performance of enterprise applications such as SAP, Oracle, PeopleSoft and Siebel. Today it claims it can monitor, manage and optimise pretty much any transaction, regardless of the underlying system or application. It calls this niche 'transaction performance management'.

"Companies need to know how well they are doing," says Kremer, "across the key performance indicators of defined transactions. They need to be able to look across them at overall health but also have the ability to dive deep into a transaction and find the cause of a problem in one tier, as well as the impact of that issue on the transaction as it runs on other tiers of the IT infrastructure.

"It must provide transparency," Kremer continues, "for each set of stakeholders: that



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includes things like throughput, the user experience, and then they need to be able to hand it off to the right IT silo to work it out.

“Many of our customers are handling between 2,000 and 5,000 transactions per second. If something is going wrong they need to know. So the first thing is giving that visibility, that transparency: is something going wrong, and if so, where? The second big thing is the need to reduce the time to repair the problem. We represent the fastest mean time to resolution.”

But don't the systems and network management companies claim they can pinpoint problems and help to fix them

faster too? “Our differentiator is that because we are fixated on the transactions, we can build a knowledge base of causes, effects and corrective actions of transaction issues,” Kremer says. “We can use this knowledge base to help guide the user through a series of corrective actions. But before they make any changes they can also run ‘what if’ scenarios to see what impact any change could have on the transactions.

“This is why we believe we have moved beyond application performance management to transaction performance management. We're not just monitoring but finding the root cause of the problem and

reducing the time to resolution,” Kremer says. “Our software won't fix the problem automatically – you don't want anyone or anything touching your production systems without human intervention – but it can help to guide the user through any change.”

State of the nation

The other value that the knowledge base brings, according to Precise, is its ability to start to act as a predictor of problems that may be developing. “Performance problems are very rarely an event; they are a state,” Kremer explains. “Because we record and monitor the performance parameters of transactions up to 50 times a second, we have something akin to a video of performance, not just a snapshot. We're storing 3-5 terabytes of performance data, because performance has seasonality – if you need to know the likely performance of your shopping transactions during your busiest shopping season and you haven't kept performance data from the last similar peak, good luck!

“Businesses have a certain cadence: quarters that are busier than others, times when finance are doing their reporting, or sales reviewing their pipelines: transaction performance management has a strong time effect,” Kremer says.

But is this approach so different from the kinds of user experience management technologies that have been around for many years? Mercury Interactive led the charge in that space at one time, as it adapted its software testing tools to be able to test the real performance that users were seeing in live, transaction environments. “The user perspective is relatively easy,” rejoins Kremer. “What you need to be able to do is look at the user, follow the transaction right down to the database of record and back. You need that knowledge base to set alerts off a pre-determined baseline. Otherwise you might find that the one person's transactions that are slow happen to be the most valuable transactions to the business, and the ones that you are spending time optimising are worth virtually nothing.

“Without the transaction context provided by the Precise knowledge base, you are looking at an encyclopedia without an index,” Kremer adds.

On the other hand...

Not everyone agrees that this is the

best way to tackle the challenge of poor or patchy transaction performance, of course. Mercury Interactive, acquired by HP, still talks about business technology optimisation or BTO, while Computer Associates' Wily technology is described as application performance management or APM. Progress Software's Actional unit prefers to talk in terms of business technology assurance. Semantics, or a fundamentally different way of monitoring, managing and optimising transaction performance?

Certainly there are those who believe that Wily is on the right track since its acquisition by CA in January 2006. In a recent report, The 451 analyst Dennis Callaghan noted that: "By all indications, Wily has retained a fair amount of autonomy within CA, is a healthy contributor to CA's growth and remains a market leader in its space. It has become a textbook example of how a large IT management framework vendor can effectively fill a gap in its offerings through acquisition without diminishing the acquired company's position in the market or growth prospects."

He added that, "CA has seen the Wily business nearly double since the acquisition, adding more than 500 new customers and over 900 new deals. In the company's 2008 fiscal year, 25 of those deals were for more than \$1m... CA cites its four main competitors for Wily as IBM, Hewlett-Packard, Compuware and Quest Software."

Chosen focus

"Wily, Precise and the like have a real focus on what is going on in a particular tier," says Dan Foody, one of the original founders of Actional and now Actional vice-president at Progress Software, which bought Actional in January 2006. "But they are not so good at telling you what connects those together."

"It's like when you have a broken bone – those guys help you poke around and see what's going on whereas our technology is more like an X-ray – there's better breadth of visibility," says Foody.

Indeed with the latest release of Actional, version 8.0, the company says a key component is Application X-Ray, which uses Actional Flow Mapping technology to discover and trace an individual transaction's flow across the production environment.

If this sounds familiar to Precise's

messaging, Foody is unbowed – he argues that: "The problem in this space is that there is often a very high performance cost [when monitoring transactions]. Vendors will claim that they use less than 5% of the CPU but if you turn on all of the available features companies often see it rise to 30-50%. That doubles your capital costs, so companies turn it all the way down again.

"That's often why you find that 60-70% of problems are reported by end users, not discovered by IT," Foody says. "We're so efficient that you almost can't measure our CPU usage. We've had people using our technology to help them decide when to turn on Wily. But we also provide much more of a business-centric view – how transactions are performing – not the bits and bytes."



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So what is Actional's 'secret sauce'? How can it claim to monitor all transactions and still not place a heavy burden on CPU usage? "A lot of management products were built when memory was very expensive and CPUs were cheap," Foody argues. "Now memory is almost free and CPU is expensive, so we flipped it on its head and use lots of memory and almost no CPU."

"We've been known mostly for SOA management or SOA governance," concedes Foody, "but now with Actional 8 the notion of business transaction monitoring and assurance is becoming more and more

meaningful. We keep patterns at the IT level and the business level, but also enable you to drill down to the transaction level."

One area where Foody and Precise's Kremer appear to agree is in the need not just for monitoring, but in technologies that can start to build a picture of transaction performance over time that can be used to prevent problems developing. "It's very rare that a transaction problem just occurs," says Kremer, "it builds up over time. We can use our knowledge base of transactions to start to minimise disruptions occurring. The end result is less fire-fighting by IT." CBR

CBR opinion

While the business service management vendors such as BMC, IBM, HP and CA take a top-down view of IT service optimisation, and niche technologies exist that specialise in database, network, server or applications management, there is another group of companies coming at the problem in a transaction-centric fashion. Not all companies will be ready to abandon their over-arching management frameworks, so the ability for these transaction-centric technologies to bubble information up into those is paramount. But as companies such as Precise have evidenced by their longevity, there will always be a need for companies that can pinpoint performance issues fast, reduce time to resolution and indeed prevent others from happening in the first place.