

**An Answer From The Engine Room
Of The Industry
by
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An answer is proposed to a question raised in "the history of complex event processing part-2"¹

I have often asked why the network monitoring applications that were developed in the late 1980's and early 1990's didn't get extended to apply to business level events at about the same time. This would have put BAM on the map a few years ahead of when it actually happened. And it would have had a lot of other effects. On the positive side, we would have had tools with much more comprehensive drill down capabilities to uncover the reasons for expected events that didn't happen and unexpected events that did happen. But, on the negative side, since most of the network management tools were being produced by major companies, it would have substantially reduced the opportunities for small startups to get a foothold in this market.

Now at long last a correspondent, Dr. Tom Bishop², a CTO in the BAM area, sent me his answer. I have long suspected this answer since the days when I was trying to sell the Stanford Rapide system to the vendors, but I've never had any evidence to back it up. Now, here it is – from the engine room!

1. THE QUESTION

It all starts with the explosion in networking in the 1970's created by the pioneering development of the DARPA net and then the Ethernet, followed by the emergence of commercial networks, and finally the Internet. This resulted in the 1980's in a rapid adoption of the use of networks in the day-to-day business operations of all manner of companies. Consequently there was an exponential explosion in event processing activity at the management level in the modern enterprise.

¹ <http://complexevents.com/?p=397>

² Dr. Bishop has kindly given permission for his email to be used in this article.

My question arises with the advent of the host of network management tools³ that were positioned to help with keeping the networks flowing. They were designed to track and trace network events and display the results graphically. The most advanced of these tools such as HP Openview, CA UniCenter and IBM Tivoli NetView were clearly the early precursors of BAM (Business Activity Monitoring). They were monitoring events in the network, and sometimes trying to reconstruct events at more abstract levels. The dashboard was established as the default user interaction interface for inputting requests and displaying results. And the tools were already employing simple kinds of event hierarchies in event analysis at the network level, although perhaps they didn't realize it.

By the early 1990's we can see the tip of the CEP iceberg! But none of these companies extended their tools and their capabilities to the layers of events above the network level – not until 5 or 10 years later.

The major vendors producing these early network management tools seem to have been slow to capitalize on the opportunity to extend their technology to business level events. It is clear that such extensions could have been made far in advance of other entrants into the business event processing market.

So the question is simply, why did they take so long? No market perhaps? Didn't think of it? A good idea before its time? I have asked many commentators and students of event processing why this was, and I have yet to find a plausible answer – till now!

2. An ANSWER ARRIVES IN THE MAIL

Dr. Bishop writes as follows.

"As the CTO for IBM/Tivoli in the 1990's, and now the CTO for BMC, it's actually a pretty simple three-part answer, although it might not make much sense to someone who doesn't actually spend lots of time in IT shops. And it will also be intellectually quite unappealing.

The first part of the answer you actually hint at in the article. When the architects for these products were building them, they weren't actually thinking of the broadest applications for the types of systems they were trying to build, but were really focused on solving a very specific problem:

³ see Article 1, figure 1

how to get information into the hands of the IT administrators charged with the care and feeding of the IT environment.

Of course, all the various business applications were running in this same IT environment and generating all kinds of business level events, but the IT administrators didn't see them, and wouldn't have cared about them even if they could see them. They were only interested in seeing IT level events, thus when asked by the vendors of the day what solutions they wanted, all their answers were centered solely around IT level events.

So, because the focus of the intended customer at that time was limited, so was the vendor building the solutions. Thus, when looking for abstractions upon which to build the solutions the vendors were being asked to build, they clearly set their sights too low (as we know now) and didn't explore more general purpose approaches, with the far greater extensibility, as you allude to above.

As we know all too well, often the correct way to solve a problem is to find the most general description of the problem and then assume that, if you've done your job correctly, the specific solution can be described as an instance or subset of the more general problem. But this only works if you know to set your sights high enough. In the environment you note above, this didn't happen.

Third, as so often happens in the messy (and immature) world of IT management, while one can often identify and even build very integrated solutions to problems that are actually quite tightly related -- and you'll get no argument from me that the problems and the solutions of IT management and business activity monitoring are quite related -- the people who buy IT management solutions don't care if the solutions they buy might also be used to solve a business activity monitoring solution, and the people who buy business activity monitoring solutions don't care if the solutions they buy might also be used to solve an IT management solution. In fact, these two groups of people almost never talk to each other, although -- again, no argument from me -- they clearly should.

So, vendors are often left with the unpleasant but very real conclusion that, even if they could build it as one solution, they couldn't get the two sets of people into the room at the same time to sell it to them. So we sell our intellectual souls and build what we can sell: distinct solutions for distinct buyers to problems that are, as I readily acknowledge, quite related. We are breaking down this barrier slowly,

and hopefully earning the right to once again knock on St Peter's gates, but it will take time."

So there it is. A pragmatic approach to "build only what you can sell". And since the buyers that were dealing with low level events and the buyers that were swamped with higher level events weren't talking, the marketplace was fragmented. Seems like there might have been an "educate the business event market" issue similar to the one facing CEP vendors right now. Perhaps there's also an element of buyers not wanting to pay more for products that would solve problems they were not actually facing at the moment, even though that might have been cheaper in the long run. One could make an argument that money would have been saved all round by a little forward thinking. Never happens, right?

Many thanks to Tom Bishop.