

JINSPIRED Developer

Software Metering, Metric Monitoring and Event Signaling for Java Developers

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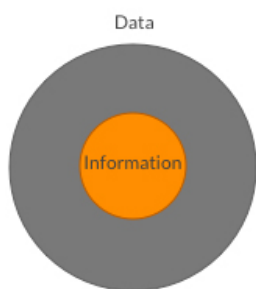
I.AM Intelligent Activity Metering

by Architect on May 24, 2011

OpenCore is the first multi-chained strategy based activity metering & measurement runtime offering unprecedented control over which activities are metered based on real-time resource consumption profiles and activity chain patterns. Through OpenCore's many extension points and optional probes providers it is relatively easy to add and configure measurement intelligence directly in the metering runtime acting in near real-time on in-flight request processing.

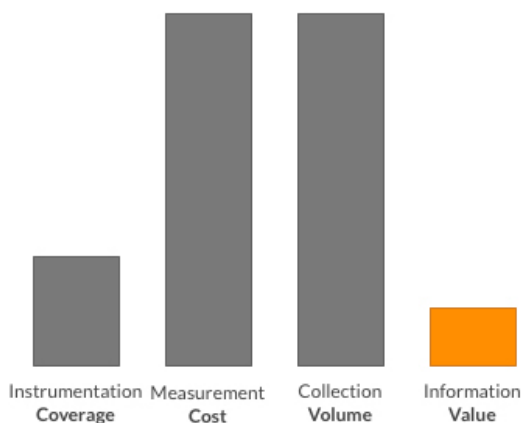
Current Application Performance Management (APM) Solutions

To better understand what is so different (*and intelligent*) about OpenCore's metering & measurement approach we first need to look at the data-to-information ratio of measurement data collected by typical application performance monitoring & management solutions.



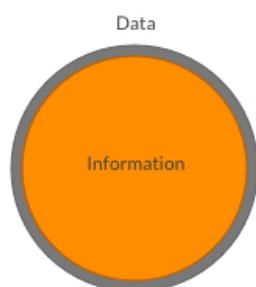
One reason for this unfavorable ratio is Measurement Inversion which states that economic value of a measurement is usually inversely proportional to the extent to which it is measured. In the context of application performance monitoring this occurs because vendors measure what they know how to measure or what is easy to measure and they wrongly believe that more (*data*) is better confusing quantity with quality.

But there are other factors which contribute to this problem including the inability of the application performance management solution to assess and factor in the cost of measurement and the value of the information collected, automatically adapting and adjusting accordingly. Not being inherently cost aware (@see [CARS](#)) such solutions collect far too much that is irrelevant and generally at a significant overhead forcing a reduction in the amount of instrumentation coverage and lessening the accuracy and richness of the information and its value.

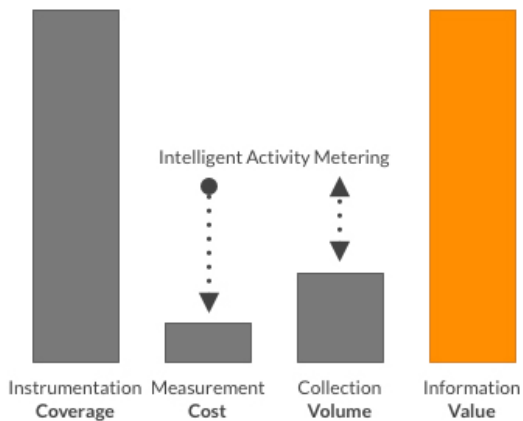


Intelligent Activity Metering (IAM)

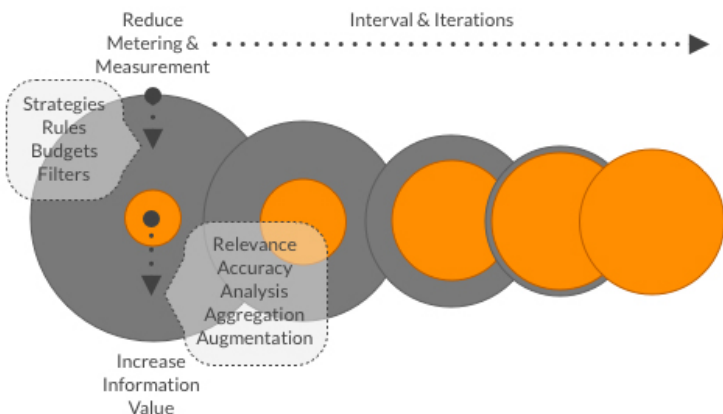
With OpenCore the ratio of information-to-data is far much better with the small gap largely attributed to the measurement and collection performed during the early stages (*startup & warmup*) of a metered process as the metering and measurement runtime observes and optimizes.



With Intelligent Activity Metering (IAM) the focus is on reducing measurement cost and increasing the relevance and richness of the information collected by optimizing the “what, when and how” of metering. This cost awareness and adaptation allows for more information to be collected ,whilst not severely impacting accuracy, which in turn can lead to further insights resulting in reduced measurement costs which in turn can lead to more information being collected....a continuous cost and value optimization cycle.



This process is depicted in the following timeline of a metered process.



This continuous reduction in cost and increase in value (*relevance & accuracy*) is achieved through the clean architectural separation that exists within OpenCore’s metering runtime with regard to instrumentation, measurement and collection as well as the unique ability of OpenCore’s metering runtime to chain multiple metering strategies and stack multiple “behavioral” probes providers with the sole purpose of observing particular activity behavior and resource consumption patterns that have relevance, meaning and value to the business and/or operational management teams.

