

It's Time for an Innovative Approach to How We Monitor Solution Performance

By Jim Cantin, President, Leveraging Technology

IBM Senior Technical Staff Writer [Anindya Neogi](#) recently blogged on the subject of “**How big data analytics are reinventing IT application management.**” First, he touches on the application management tools that have traditionally collected performance metrics and some amount of log and trace information, and generated events to help detect and diagnose issues when apps are in a production setting.

The Challenges of A Fundamental Shift

Neogi goes on to consider the implications of what he calls a “fundamental shift in the way development and operations processes are integrated.” The traditional boundaries between the dev/test and production processes are disappearing, he says, precipitated by the rapid rate of change in IT, demands for greater versatility and direct user experience feedback. However, Neogi points out some thorny challenges to the transformation of application management:

- Monitoring data is largely log-based with built-in instrumentation provided by developers of middleware stacks and applications.
- This data is not structured like numeric performance data and can contain unstructured text.
- Developers do not follow a uniform logging standard and add new information to their logs depending on their debug scenarios.
- It is hard to put this data into a fixed schema and process it using relational queries to create dashboards that help to detect and diagnose application health.
- The very nature of the data -- high volume running to terabytes per day for a large enterprise-- can stress any traditional management system.

What's Needed to Transform Application Management?

Neogi writes that in response to the shift, “IT application management is reinventing itself to serve new market needs based on big data technologies.” He says that what are needed are tools that can:

- Collect, analyze and store large volumes and varieties of unstructured, machine-generated data at low latency and low response times, enabling users to detect and solve app problems in near real time.
- Provide a user experience that can process the data and answer questions from IT users who do not possess knowledge of big data platforms.

Innovation in Action: New Managed Services Insight – MSI-Aware™

In anticipation of these demands, Leveraging Technology created an application management solution that extracts Big Data from system log files and applies massively parallel processing and analytics to monitor and improve system performance.

The most notable benefits of this MSI-Aware™ solution are:

MSI-Aware™ Solution Benefits

- *Awareness of data on running systems*
- *Automated data collection*
- *Staging for analysis*
- *View of solution health*
- *Insight for problem determination*

1. MSI-Aware™ raises awareness to what's actually happening on running systems by providing visibility to important data at moments in time.
2. Using minimally invasive techniques to abate impact on system performance, MSI-Aware™ automatically collects data from source systems and stages them for analysis.
3. During the problem determination process, MSI-Aware™ brings greater clarity to overall solution health by combining the applied knowledge and experience of middleware consultants with statistically derived associations to create insights that otherwise would be unavailable.

Awareness and Control: the MSI-Aware™ Dashboard in Action

The highly visual dashboard (shown below) provides unprecedented visibility to information and automated alerts and offers the ability to affect data and decisions. It empowers IT managers by:

- Identifying statistically derived associations.
- Capturing performance and stats in real time.
- Isolating transactional elements affecting performance.
- Negating impact on system performance due to data collection.
- Enhancing the ability to make improvements faster and more efficiently.



MSI-Aware™ Dashboard provides visual monitoring of stats such as:

- Application and service CPU usage
- Inbound and outbound messaging utilization of short-term memory
- Consistency/stability of message flows
- Response time for requests thru ESB.

MSI-Aware™ is part of the Leveraging Technology Managed Services for IBM application platforms. Read our [fact sheet](#) about Platform Managed Services. The solution is supported on public, private, and hybrid Cloud models.

Contact: Call 585.454.4250 x100 or email info@leveraging.com to discuss how this approach can provide greater system clarity and overall platform system health and performance.

About Leveraging Technology

We are a business consulting firm founded in 1998 that fully understands how all aspects of the information technology lifecycle can impact business results. We employ a practical, partnering approach to transforming the design and architecture of your business and information technology environment to drive business performance.