



Compuware Mainframe Application Performance + Developer Productivity Solutions = Smoother Handoffs, Faster Problem Resolution

Compuware is delivering integrated, automated tools to address long simmering, suddenly critical challenges to successful IT operations. Since the introduction of their very first software product, Abend-AID in 1978 – which seriously launched the market for fault resolution products – Compuware has focused on making life easier for developers, operators and administrators of mainframe computers, distributed servers and the services that depend upon them.



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Recently, Compuware united Abend-AID and Strobe – products for finding problems – with its Developer Productivity solutions – products for fixing them – to facilitate significantly better communication and collaboration between IT teams. This unprecedented level of integration helps staff take a more unified and faster approach to finding and fixing problems. Compuware has also added new capabilities to Strobe, Abend-AID and the Compuware Workbench development environment.

Let’s examine the need for these new “find & fix” capabilities and see what Compuware delivers.

What’s the problem?

Today’s enterprises, whether insurance, financial, manufacturing, retail, etc., depend upon the reliable delivery of an ever evolving set of services, entirely dependent for delivery upon a complex computing and networking infrastructure. More often than not, that service involves a mainframe in parts of the service delivery, including performing critical customer-facing tasks.

At the same time, a fickle, highly mobile user base and competitive pressures create an environment with little tolerance for poorly performing, unreliable or static services. This increases the need for speed and efficiency at finding and fixing programming errors.

Rapidly emerging and evolving technologies, increasing sophistication in consumers, and escalating expectations continue to increase complexity and speed of delivery when creating new services. Today’s service delivery implementation environment consists of a multiplicity of complex, rapidly changing interconnections and dependencies, some obvious, others not so obvious.

Unfortunately, the separation of expertise which exists in traditionally siloed IT environments tends to work against rapid solutions. This holds true for both the infrastructure with professional staff siloed by platform, e.g. distributed servers versus mainframes, as well as for functional responsibilities with separate development and operational teams for each platform. Compuware summarizes the issues in this very short, but effective video: <https://www.youtube.com/watch?v=uvnPoYBUbIs>.



Further complicating the problem is the shortage of a mainframe-skilled workforce. Most developers of distributed applications have little to no understanding of how to take advantage of (or avoid inefficient invocation) of the unique capabilities of the mainframe. Worse, no matter the quality of training, newly minted mainframe staffs lack the expertise and insight into mainframe idiosyncrasies that can only result from experience. Even with retirements delayed by a weak economy, IT managers are very conscious of the looming shortage and thin layer of expertise.

A combination of experience and research identifies four issues that complicate efforts and continue to plague both enterprise application developers and operations staffs:

1. Pressures on the mainframe (staff and infrastructure) continue to grow – increasing use of mainframe resources, increasing expectations of performance, more customer-facing applications, shortage of skilled staff and the lack of experience of new staff.
2. Application/service performance problems take too long to resolve – escalating complexity of applications means it takes longer to repair and recover from a failure.
3. Technology failures occur and reoccur at alarming rates – operations staff must deal daily with quality and performance problems, and all too often problems result from the source code, improper calls, poor utilization of mainframe strengths, etc.
4. Technology (and functional) silos hold IT back – problem identification and resolution complicated by siloed organization, low levels of cooperation, poor intergroup communication, lack of coordination and communication among operations and problem solving teams.

Compuware is in an excellent position to address these challenges. As a supplier of mainframe performance management and development solutions, they have been helping IT teams collect detailed analyses of mainframe and, more recently, distributed application performance problems and exceptions, for more than 30 years. They also have conducted studies that confirmed the challenges¹ facing management and mainframe staff as well as, the loss² to the business in productivity and lost opportunities. Let’s see how they applied that expertise.

What’s to be done?

Compuware’s product strategy focuses on integrating and automating the complex processes used to resolve the problems experienced by mainframe IT customers. They set out to provide IT operations and development with an automated solution that preserved and provided the necessary data and information in a context appropriate to each group. The major constituency of interest was mainframe operations staff and developers.

Solving the problem required addressing three fundamental process issues. These are:

- Finding the source of the problem – use existing tools in the most effective way to monitor, analyze and pinpoint the cause of an application performance problem. Today, important data that would be valuable to developers is frequently not preserved and passed on. A major reason for this is the lack of an integrated solution that prevents data loss and allows it to flow smoothly

¹ <http://investor.compuware.com/releasedetail.cfm?ReleaseID=811444>

² <http://investor.compuware.com/releasedetail.cfm?ReleaseID=812851>



from operations (or QA) to development. Other losses resulted from poor communications, lack of fixed procedures and lack of awareness of what is important to other groups. The solution lies in monitoring and storing data on all transactions 24/7. Then, use sophisticated tools to isolate the fault to specific domains and improved root cause analytics to pinpoint the problem.

- Smoothing the handoff of data from operations or QA to development – leverage information and problem definition collected during problem analysis and automate the handoff. As documented in studies and by practical experience, siloed IT organizations isolating expertise by function and architectures inevitably disrupts communications and inhibits and frustrates collaboration. Isolated teams cannot develop an understanding of the activities, data sharing, cooperation, etc. necessary to their respective success.
- Fixing the problem – numerous inefficiencies existed that made it difficult for developers to recreate, debug and test solutions. A way to address this would be to use a modernized, Eclipse-based user interface that makes these common developer tasks faster and easier to perform. Finally, real-time control of debugging and testing processes will help to improve task uniformity and consistency in efforts at analysis and remediation.

Finally, a solution is more valuable if it does not require extensive new training to use. Compuware did the hard work of integrating proven find and fix best practices and processes with the expertise of multiple stakeholders (mainframe, distributed, operations and developers). The result is an enhanced, fully automated solution set.

Products + experience + expertise = Developer Productivity

Compuware has the tools necessary to address these problems in a comprehensive, effective and efficient manner. Compuware’s history of developing solutions for DevOps teams provides the expertise to assemble a solution that will automatically resolve the problems outlined. Over a year ago, we discussed how with Compuware APM for Mainframe and Strobe, Compuware was leveraging over 40 years of technology, knowledge to deliver a more efficient, automated solution to its customers³.

Their latest release uses key components, i.e. Compuware Strobe, PurePath for z/OS, CICS and Abend-AID to enhance data collection, analysis, and reporting to address application performance problems. New features increase efficiency and ease of use in data analysis and reporting. A new iStrobe interface facilitates drill down to identify root causes. Strobe Advisor helps to resolve problems and improve performance for CICS, IMS and Language Environment (LE) Operations with automatically generated recommendations for repair. QA teams get more detailed data that helps to get to the root cause of application performance problems.

[Compuware Workbench](#)⁴, an Eclipse-based mainframe development environment, brings together eight tools. It has extended capabilities for debugging, data search and editing, as well as code coverage reporting. Increased integration with the rest of the productivity tools means more of the detailed operations data about application performance are available to developers. Videos located here:

³ See <http://www.ptakassociates.com/content/>

⁴ See http://www.compuware.com/en_us/mainframe-solutions/products/workbench-mainframe-modernization.html



<http://tinyurl.com/oc7ny8y> demonstrate how Workbench with its quick access to these tools improves the productivity of new as well as, experienced mainframe developers.

The enhanced integration also means that as operations staff collects data, it is automatically saved for in-context feedback to developers. The data includes operations' information (comments, notes) and insights (debug configurations) that make it easier for developers to find and fix the problem. The result is a greater level of communication automation and collaboration among teams that yields faster problem identification and resolutions, improving service delivery and the job performance of all involved.

What's the bottom line? The benefits customers report include reduced MTTR (Mean-Time-To-Repair) of 90% to 95% in teams collaborating and sharing data with iStrobe and Compuware APM. Zero-configuration PurePath for z/OS installs faster with less than 2% overhead which speeds time-to-value with minimal operations load. Other users point to earlier identification and faster resolution of performance problems due to 24/7 transaction monitoring and code visibility. This latest integration and automation will only add to these benefits.

The Final Word

We like Compuware's approach to building their products, and how their products have evolved into solutions. We believe that IT has reached the point where technology can economically solve problems once viewed as unsolvable or inconceivably difficult. Vendors can now economically share unique knowledge of their solutions' capabilities, as well as how they are used.

Vendors with support organizations also have an extensive amount of frequently undervalued and underutilized expertise in the practical application of their solutions to address these problems. They have insight into the organizational idiosyncrasies and problems shared by IT staffs at multiple enterprises. An integrated, automated solution permits vendors to leverage this knowledge as they build competitive advantage by benefiting their customers.

Vendors are learning to listen to and creatively involve customers to build solutions. Compuware is one of the leaders in rapidly integrating what they learn into their offerings. The in-depth understanding of how customers use their products is demonstrated in their ability to leverage the tools' capabilities in the context of the users' responsibilities.

Compuware's recent announcement builds on last year's efforts. Compuware is among the elite vendors recognizing that success lies not in simply solving the immediate 'want to have' feature/function requirements articulated by customers. They go a step further to a creative blending of technology and expertise in order to deliver solutions that address broader issues that cause problems. More and more customers recognize and appreciate this approach.



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