



# Mainstreaming the Mainframe, Developers hold the key!

Under the leadership of Chris O'Malley, [Compuware](#) has redefined and driven itself to be among the leaders in providing innovative, ground-breaking mainframe solutions. We've discussed their strategy and accomplishments in [multiple articles](#). They have consistently met their commitment to quarterly delivery of significant solution enhancements and further demonstrated the effectiveness of Agile development in the mainframe environment by taking just 84 days to go from concept to product with [Topaz Runtime Visualizer](#).



Now, Compuware has announced an evolution in their strategy. Based on Compuware's own experience (successes, as well as frustrations) with Agile development, along with intense customer interaction, they recognized the need to change the focus of enterprise IT with respect to the mainframe and mainframe solutions. The division of IT development and operations between Open Systems and Mainframe Systems is well-known, widely documented and continually frustrating as it continues despite multiple attempts at integration and cooperation between the groups. With some 80% of enterprise critical data and services residing on mainframes, the challenges resulting from the split have only grown worse.

The transformation to the digitized enterprise, proliferation of mobile devices and acceleration of evolution in applications and services places a competitive premium on continuous delivery. It also means that businesses must quickly leverage highly talented developers to make use of the inherent strengths of mainframe technology.

Compuware is breaking traditional models to focus on mainstreaming the mainframe, that is, empowering customers to incorporate mainframe applications into their broader cross-platform Agile/DevOps processes. They intend to accomplish this through the evolution of their own products and solutions, the use of newly acquired technology, as well as through newly created technology integrations with leading mainstream vendors.

## ***The Issue:***

Both industry IT and vendors have been attempting to reduce the gap and lower the barriers to Open Systems and Mainframe Systems cooperation for a long time. A variety of efforts have been undertaken to update tools/processes/solutions with significant improvements being made in many areas. These include:

1. Update management and control tools/solutions for consistency across platforms,
2. Improve the accuracy of expense allocation (between mainframe and open systems) and optimization of costs,
3. Provide high performance Linux, support services and some traditional and open systems management tools,



4. Automate, integrate, visualize program understanding that preserves existing asset investment, reduces maintenance and operations expenses, improves trouble-shooting,
5. Reduce the linkage between the mainframe and open systems to let each continue to function at their historic rates (more of a Band-Aid, than a solution).

The mainframe's history has positioned itself as a separate, stand-alone platform. It is indeed an icon with unique capabilities in terms of security, resilience, transaction processing power, 'cloud' operations, etc. It is also the trusted repository of vast quantities of valuable and critical enterprise assets in terms of data and delivered services. (The referred to 80% of enterprise data.) BUT, especially when compared to Open Systems, getting access to these unique strengths takes too long, requires esoteric, scarce (and getting more scarce) knowledge at odds with today's Uber-oriented minimal time-to-market, rapidly evolving and personalized services.

The approaches described have improved operations by eliminating some of the differences in infrastructure management and operations. They also help to expose mainframe advantages to other parts of the business, but they tend to avoid addressing the more fundamental challenge. They have failed to attract or significantly raise the interest of application developers skilled in open systems' Dev/Ops. As result, these developers cannot/do not leverage mainframe strengths nor effectively exploit enterprise assets held on it. The net effect has been to preserve the 'cultural' gap by accomplishing little to eliminate or even reduce separated, siloed operations.

### **Compuware's Solution:**

However, enterprises simply cannot afford to abandon the mainframe platform. The significant, critical embedded investment in the mainframe is key to current and future success. Time and again, it has proven to be too expensive and risky to move applications off the mainframe. The key is to demonstrate that any such move isn't necessary. To that end, Compuware is making it easy for developers to use their favorite and best-of-breed tools to fully utilize the mainframe.

Their mission is to "Mainstream the Mainframe" by using technology, services and partnerships to allow the developer to focus on the coding that creates an application or service. The strategy is to provide mainframe tooling that is similar if not identical to the tooling used by distributed programmers. This will allow developers that are only familiar with distributed programming to be proficient in any environment. Familiar tooling will make it easy for these developers to leverage and access the mainframe's unique capabilities without having to learn a new set of unfamiliar tools.

In today's DevOps environment, coding is coding – the tools for defining the parameters, calculations, manipulation of data, etc. that needs to be done is the art and science of coding. But, much of the work of coding has nothing to do with syntax. For example, it takes time to understand the requirements, determine how the new code integrates into the rest of the system, and convert the requirements into logic. Once a developer understands this, the code can be written in any syntax and he/she can focus on good coding techniques without being concerned with or being aware of the idiosyncrasies of the target platform. The software analysis remains the same as do the coding tools; it's just the implementation syntax that is



different. Compuware, working with a community of like-minded associates will make the most popular, well-known, best-of-breed tools, services and techniques for application development neutral.

### ***Execution is key***

The techniques and style of application development and service delivery have changed. Agile programming techniques have dramatically accelerated the speed of development, flexibility and ease of platform access. Until recently, the mainframe has lagged behind in its ability to apply and leverage the capabilities of the latest DevOps advances and the agile programming ecosystem. Eliminating antiquated mainframe tools and slow processes enables IT to modernize Mainframe Systems at the same speed of Open Systems development and to get new code into production faster.

Over the last two years, Compuware has shown it is possible to make mainframe development go faster. They did so by changes to their own products, as well as bringing the latest in DevOps ecosystem tools, technologies and expertise to the mainframe environment. Compuware is well aware that such a dramatic expansion of the Mainframe/Open Systems development ecosystem requires a broad community effort. To that end they have implemented an extensive cross-industry outreach program to develop the ecosystem. Their efforts to date include:

1. Strategic acquisition (ISPW – source code management/release automation)
2. Replacing existing tools (conversion to ISPW from CA-Endevor, CA-Panvalet, CA-Librarian and Serena ChangeMan)
3. Targeted DevOps technology integrations with [Atlassian](#), [SonarSource](#), [Splunk](#) and [AppDynamics](#) (Agile development)
4. Customer-benefitting partnerships with like-minded vendors, including [BMC](#)

This is far from a complete or even comprehensive list of activities. Successfully bringing together the Mainframe and Open Systems worlds into an integrated development environment will take time. There are a number of implementation issues that also need to be considered. These include:

- a. Sensitivity to organizational, as well as the cultural concerns of both Mainframe and Open Systems teams,
- b. Partnership with key additional, emerging de facto product and technology leaders,
- c. Acquisition and integration of key de facto/jure technologies,
- d. Product/Product/Product – the evolution and replacement strategies and plans for existing products.

We discuss these issues in a separate document.

### ***The Final Word***

Compuware proposes a dramatic strategy for speeding mainframe development and utilization and ultimately ensuring the long-term viability of mainframe applications. They propose to do so by removing cultural and technological barriers surrounding the mainframe. The ultimate goal is to protect existing investments in IT and enterprise assets by merging mainframe and open systems development operations into a single



ecosystem. Compuware calls it: "Agility without Compromise realized in simple, elegant solutions that enable a blended development ecosystem." We think the idea is a good one. Accomplishing it will not be easy. But, Compuware's own success in making the transition to 'agile development' in their own shop testifies to the potential for future, broader success.

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