BROADCOM®
MAINFRAME SOFTWARE

**WatchTower Platform™
Capability Brief**

WatchTower Platform™ Application Profiler

Optimize the Performance of Applications, and Minimize the Risk of Application Changes

Overview

The Broadcom® WatchTower Platform™ for mainframe AIOps includes an application profiling capability (AP4z). Use this feature to discover applications as they flow across the mainframe and gain insights that are invaluable to understanding how application assets are used. Enable IT Ops teams to readily identify how to optimize application resource consumption and de-risk modernization projects.

Business Challenges

The rate of digital business transformation is rapidly accelerating and shows no sign of slowing. The resulting increase in transactional activity puts pressure on the mainframe IT Ops teams responsible for the health of the infrastructure that hosts critical business applications. Yet, the focus for many of these teams continues along the time-honored path of ensuring maximum system efficiency to reduce operating costs and maintain committed service levels.

For decades, system-level and subsystem-level optimization has been a popular discipline that has provided significant results. However, so much has already been accomplished in this space that opportunities for improvement are diminished.

In contrast, optimization and modernization at the application level continues to be an untapped opportunity for improvement—mainly because it has proven difficult (impossible) to discover the applications and associated key metrics.

The lack of information makes it impossible to know where to focus attention, jeopardizes the resiliency and availability of business services, and leaves applications in a suboptimal state with untapped performance and resource optimization opportunities.

Solution Overview

Designed to monitor the execution of large business workloads, the WatchTower application profiler capability bridges this application performance information gap. It discovers the flow of applications, collects data, and reveals insights about the behavior of applications to obtain the desired results for business services.

Key Benefits

- **IT and business alignment:** Aligns business resiliency and IT resiliency by making mainframe applications and their performance visible and providing insights.

- **IT efficiency:** Enables mainframe IT Ops teams to quickly understand what applications are affected by an infrastructure issue, prioritize resolution efforts based on business impact, and alert relevant application teams accordingly. Application performance and resource consumption can be optimized with reduced risk.

- **Business efficiency:** Enables enterprise Ops teams to quickly get details about the profile of a mainframe application, see changes in behavior, and make informed decisions about how to proceed when a delay is detected.

Key Features

- **Application understanding:** Designed to profile application execution at scale, the WatchTower application profiler automatically determines the relationships between different programs and applications, and identifies the most used programs and the programs using the most processing resources.

- **Detailed data collection:** Collects and reports on a wide variety of metrics, including elapsed time and CPU consumption at the individual module level. The WatchTower application profiler automatically collects each active module's compile date, compiler release used, and compiling options.

- **Visual representation:** Builds a long-term history of active programs and their performance. The WatchTower application profiler uses call graphs to visually present a full picture of programs, subprograms, and their relationship to each other.

Critical Differentiators

- **Real-time visibility:** Unlike library scanners and source code analyzers which provide static, point-in-time views, the WatchTower application profiler delivers visibility into application behavior and the relationship among programs in real time—while the application is executing.

- **Low overhead:** Unlike execution samplers which can deeply analyze specific programs but are limited in use due to their significant impact on performance, the WatchTower application profiler enables always-on analysis. It has a lightweight design that has no special system requirements and a negligible impact in terms of CPU consumption.

Solution Overview (cont.)

The WatchTower application profiler provides IT operations teams with otherwise unavailable insights. These insights are crucial for understanding how application assets are utilized and for defining the scope of optimization and modernization projects. Its lightweight design ensures minimal overhead, allowing continuous monitoring of the entire application portfolio. This monitoring helps to build a long-term history of program usage, performance behavior, and inter-relationships.

The information collected by the WatchTower application profiler enhances the efficiency of support and change control teams. When issues arise, the profiler helps to quickly identify the correlation between problematic infrastructure and the dependent applications, ensuring that the right teams are contacted immediately. This ability to focus on business impact directs resolution efforts more effectively.

The WatchTower application profiler also benefits application development, performance analysis, capacity planning, security, and operations teams. By highlighting significant inefficiencies, it enables targeted optimization efforts that would be too costly or risky on a large scale. This prioritization reduces costs and risks, increases the likelihood of success, and accelerates the return on investment for optimization and modernization projects.

Additionally, the WatchTower application profiler aids in assessing the status of an application portfolio. It allows you to estimate potential savings from projects like compiler migrations, more precisely track progress during project execution, identify unused programs, and highlight the most-used and resource-intensive programs.

All data collected by the WatchTower application profiler is consolidated into a cloud-ready, off-platform data-analysis solution built on popular open-source technologies. This data can be analyzed with an intuitive browser-based interface that supports interactive queries, batch reports, and alerts without requiring complex skills.

Next Steps

The WatchTower application profiler capability is included in the **WatchTower Platform**.

For more information, please visit our site at:
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