Virtual CICS User Group

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Virtual CICS User Group Presentation

EMPOWERING CICS PERFORMANCE ANALYSIS WITH ADVANCED TOOLS

Recently, the *Virtual CICS User Group* hosted **Ezriel Gross**, a Principal Solutions Advisor at *Rocket Software*, specializing in IBM CICS tools. With a wealth of experience as a gold consultant and IBM champion, Gross co-architected the *C\Prof* product, a revolutionary tool that captures CICS trace without running within a CICS region.

During his useful presentation, Gross addressed the challenges faced by organizations when it comes to problem analysis and performance tuning for CICS. These challenges range from complex code to skill shortages. To help professionals tackle these issues, Gross developed a comprehensive methodology called **Detect**, **Verify**, and **Solve** which uses a suite of tools now available for analyzing CICS performance.

The first step, **Detection**, involves using suitable monitoring tools like *IBM OMEGAMON* for CICS to understand the frequency and severity of problems. Historical data plays a crucial role in this stage, enabling a thorough analysis and remediation process.

Verification comes next, employing tools like *CICS Performance Analyzer* or SMF data analysis to validate the observations made during the detection phase. This deep dive analysis allows for a comprehensive understanding of system performance, especially during peak periods.

Finally, the "Solve" stage is all about detailed application analysis. Gross introduced *Rocket C\Prof*, a powerful tool that collects CICS trace data without running within a CICS region. Access to such detailed information helps resolve complex issues faster, streamlining the problem-solving process.

Detect, Verify (Analyze) and **Solve**

Solve – Requires a tool that can forensically analyze application flow.

Rocket C\Prof

- Reproducing a problem and identifying solutions with existing tools can be tedious, time consuming, and expensive.
- Rocket C\Prof helps organizations get more business and operational value from IBM CICS internal trace data while it protects your IBM z/OS mainframe environment.
- Rocket C\Prof provides the added details you need to diagnose problems in your CICS applications faster—with minimal impact on your business-critical applications.

Access to data for deep dive application analysis

Rocket software

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EMPOWERING CICS PERFORMANCE ANALYSIS WITH ADVANCED TOOL
Continued

Throughout his presentation, Gross stressed the importance of using additional tools to enhance performance analysis and monitoring. *IBM OMEGAMON* for CICS was highlighted as a valuable tool for detection, monitoring, and remediation at a high level. Real-time and historical data collection, proactive alerting, and bottleneck analysis were emphasized as key features. The tool also allows users to check the overall system health and drill down to individual regions to identify and resolve performance issues efficiently.


Gross further discussed the significance of *CICS Performance Analyzer (CICS PA)* for performance analysis and monitoring. Collecting SMF data provides a better understanding of system performance over time. *CICS PA* offers pre-built report forms and report sets that simplify data analysis.

Various data classes, such as **Performance**, **Exception**, **Identity**, and **Transaction Resource Identity**, can be collected using *CICS PA*. Analyzing SMF data has numerous benefits, including improving resource usage, transaction performance, availability, aiding in capacity planning and tuning, and providing application-level performance analysis.

In his presentation, Gross delved into response time structure, suspend time breakdown, and different types of waits that occur in a CICS environment. The CPU to dispatch ratio was highlighted as a key metric to monitor, and statistics recording was recommended for better performance analysis.
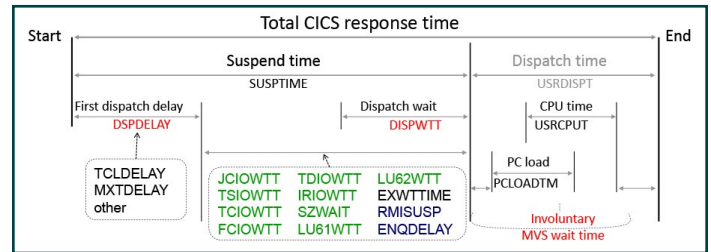
Gross demonstrated an example report generated by *CICS PA* for a customer's web services transactions. The report helped identify transactions with high CPU usage and focus on areas that needed tuning, resulting in significant performance improvements.

Moreover, Gross introduced *CICS Performance Analyzer's* support pack, *CA Ten*, which enables data visualization in JSON format. This allows for the creation of easy-to-read dashboards and graphs. He showcased sample dashboards generated with Splunk and Elastic Dashboards, emphasizing the benefits of visualizing data, especially when reporting to upper management.

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NEXT VIRTUAL MEETING - September 12, 2023, 10:30 AM CDT

Using CICS Artifacts to Build Web Service APIs

CICS applications are still responsible for "running the business" in many major organizations. In this presentation with a live demo, participants will see how to reuse, without change, existing CICS transactions, programs, and/or data to build a web service. James Alexander will demonstrate how you can quickly build web service APIs out of these applications without the risk of having to re-platform or rewrite them using HB.js

REGISTER

Jason Alexander
Software Engineer
Broadcom

## EMPOWERING CICS PERFORMANCE ANALYSIS WITH ADVANCED TOOL
Continued

Gross presented *Rocket C\Prof* as a tool for deep dive analysis within CICS. *C\Prof* uses cross-memory services to collect trace information without impacting CICS performance. It aggregates data from multiple regions and presents it in a higher-level format, making it easier for application programmers and junior Sysprogs to analyze trace data. The tool allows users to record application traces, format data for AUX Trace, and enables historical analysis of CICS events.

In conclusion, Gross's presentation highlighted the importance of using advanced tools for CICS performance analysis and problem-solving. With the **Detect**, **Verify**, and **Solve** methodology, professionals can overcome the challenges posed by modern applications and ensure optimal system performance in today's dynamic business environment. By embracing tools like *IBM OMEGAMON* for CICS, *CICS Performance Analyzer*, *CA Ten*, and *Rocket C\Prof*, IT teams can make data-driven decisions, improve efficiency, reduce downtime, and create a smoother experience for end-users.

What is C\PROF?

- A completely new approach to trace capture
- Uses significantly less CPU than traditional tools
- Does not require changes to CICS
- With C\Prof, the CICS trace becomes:
  - Inexpensive to capture
  - Simple to interpret
- C\Prof *unlocks* the hidden value of the trace
  - Low CPU usage means you can run it in production
  - Ideal for permanent use in development environments

Rocket software

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Solve
Rocket C\Prof

Detect
IBM Z OMEGAMON
for CICS

Verify
IBM CICS
Performance
Analyzer
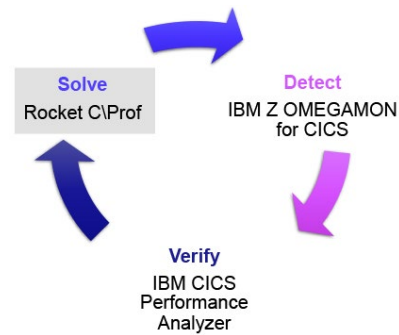
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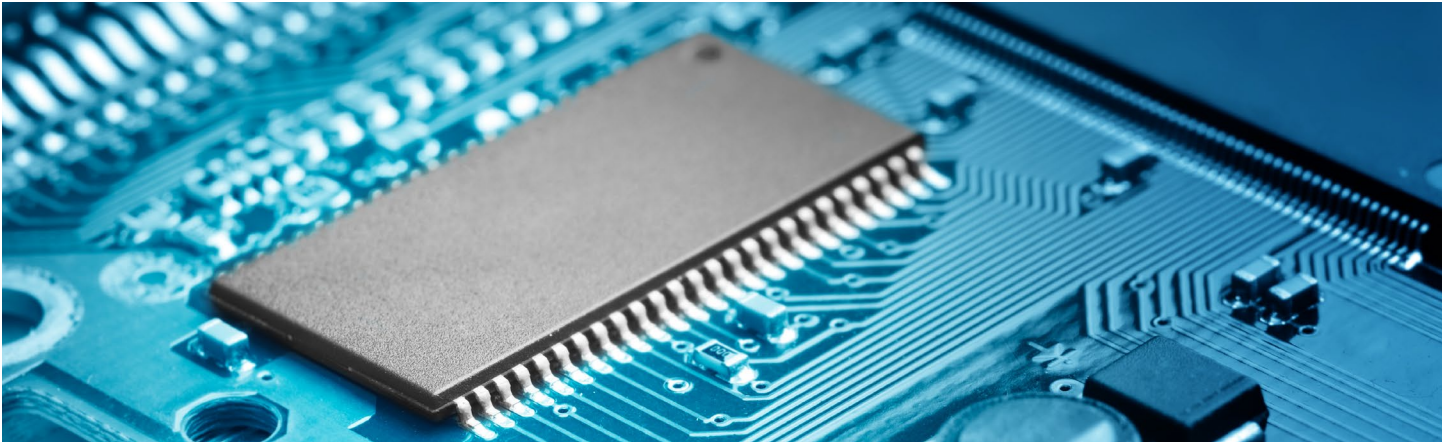
NEWS AND ANNOUCEMENTS

- **Register Today for the Broadcom Virtual Mainframe Technical Exchange** Save your spot for the **2023 Broadcom Virtual Mainframe Technical Exchange** on October 3-5. This no-cost online event is open to all Broadcom customers and partners. Broadcom Mainframe technical experts will deliver over 100 sessions, covering technical education, product roadmaps, how-tos, and roundtable discussions. Join us to network virtually with your peers across the globe and gain knowledge you can use immediately. **Register today!**

- After you **register** for our next event on September 12th, save the date for our November 14th session with Andy Wright, IBM Master Inventor

ABOUT THE VIRTUAL CICS USER GROUP

The Virtual CICS user group was established as a way for individuals using IBM's CICS TS systems to exchange information, learn new techniques, and advance their skills with the product. The Web site at **https://iteched.com/virtualcics/** provides a central point for coordinating periodic meetings (which contain technically-oriented topics presented in a webinar format), and provides articles, discussions, links, and other resources of interest to IBM CICS practitioners. Anyone with an interest in CICS is welcome to join the Virtual CICS user group and share in the knowledge exchange. To share ideas, and for further information, contact **virtualusergroups@gmail.com**. The Virtual CICS user group is free to its members.

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