



Virtual CICS user group: Newsletter 59



Welcome to the Virtual CICS user group newsletter. The Virtual CICS user group at virtualcics.hostbridge.com is an independently-operated vendor-neutral site run by and for the CICS user community.

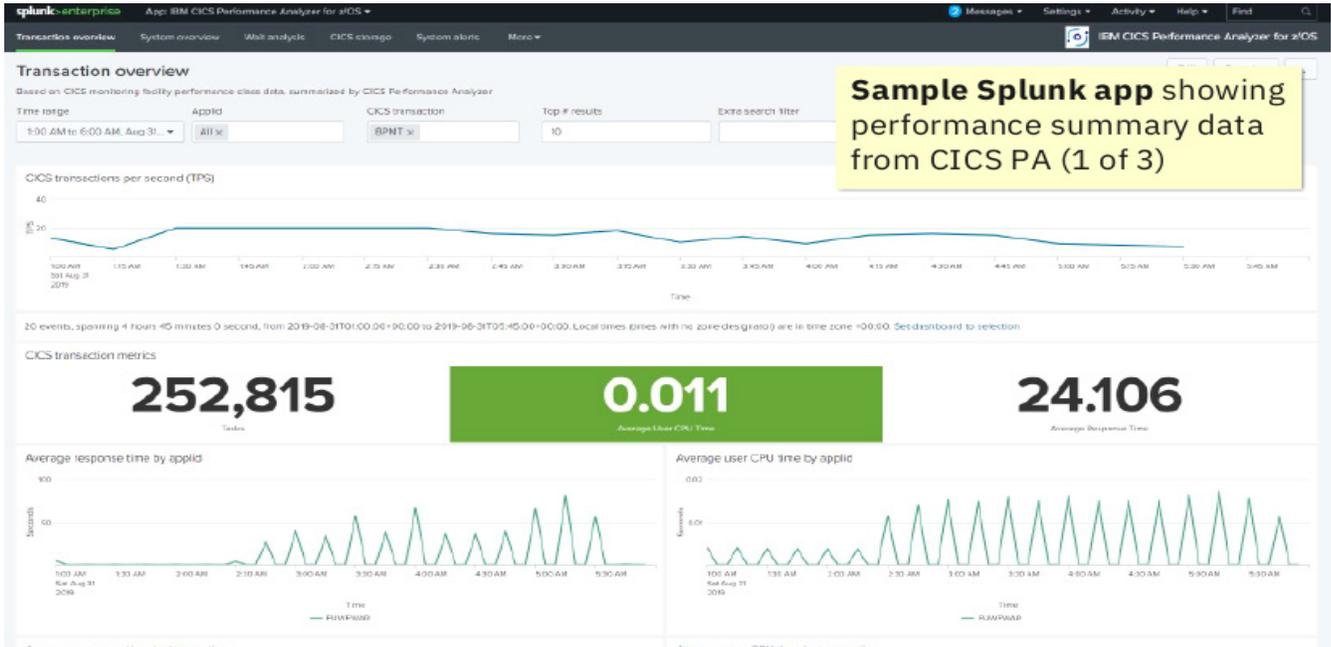


Figure 1: Using Splunk to show performance data

Virtual CICS user group presentation

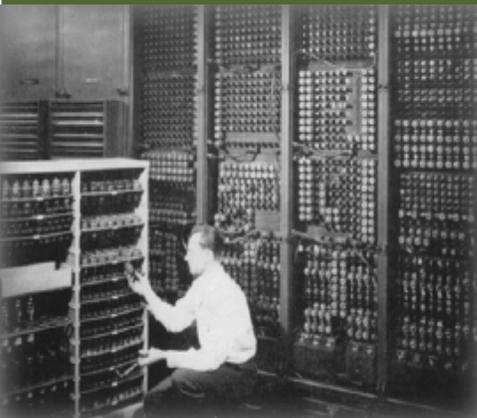
The latest webinar from the Virtual CICS user group was entitled, “Visualizing CICS performance data in Splunk using CICS Performance Analyzer”. It was presented by Ezriel Gross, Principal

Solutions Advisor at Rocket Software.

Ezriel is a Principal Solutions Advisor for Rocket Software specializing in IBM CICS Tools. He was formally the CEO of Circle software (acquired by Rocket Software in 2019), where

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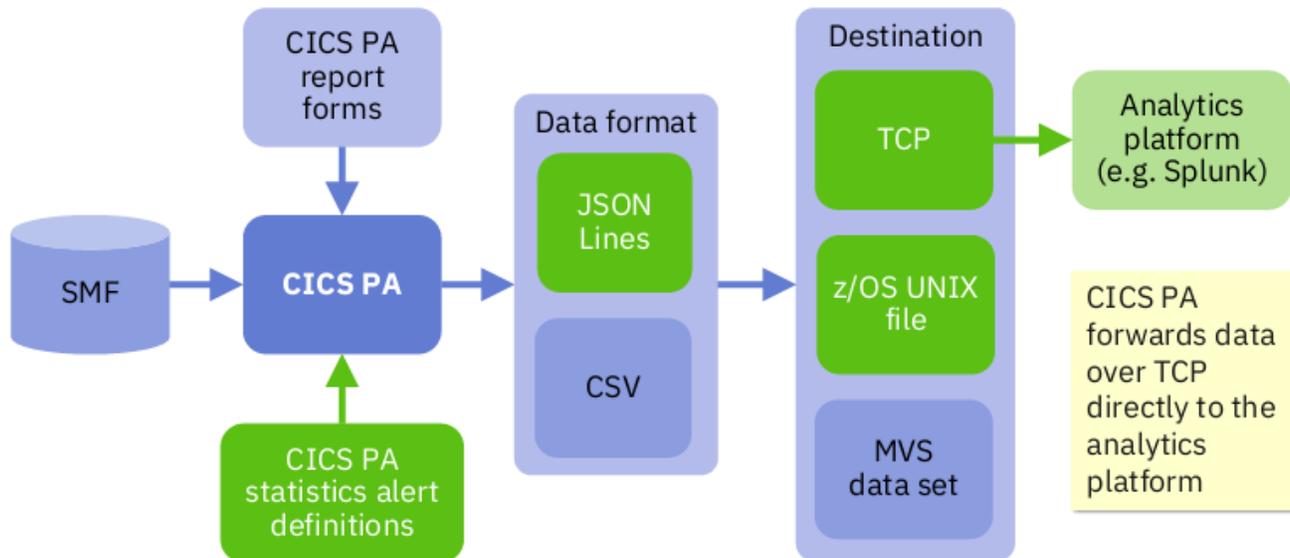


Figure 2: New: JSON Lines over TCP

he specialized in hands-on classes and consulting in CICS, DB2, and MQSeries. Ezriel was a Gold Consultant for many years and is currently an IBM Champion. His specialties include: Web Services, Web Support, Performance / Tuning, Internals, CICSplex SM, DevOps, and Liberty as they relate to CICS. He recently co-architected the C\PROF product, a tool that captures CICS trace without running in a CICS region.

Ezriel Gross started his presentation by showing an example of a Splunk app showing statistics alerts from CICS PA. This is shown in Figure 1.

Ezriel went on to explain that in today's world, there are ever-expanding costs, while at the same time

there's pressure to reduce expenditure and a lack of skilled resources. That's where tools, like CICS Performance Analyzer for z/OS, can help.

In CICS, programs can be grouped together to form tasks, which can be grouped together to make a transaction. Tasks run concurrently, so a user can run multiple instances of the same transaction simultaneously. CICS multitasks, giving fast response times. Lastly, CICS runs each task for a short period of time, so that each one gets some CPU time.

He then recapped about response time, saying that response time consists of suspend time (the time a task is not executing, ie waiting) and dispatch time

(the time that CICS thinks the task is executing). Dispatch time is further divided into CPU time (the time the task is executing on the CPU) and wait time (the time the CPU has been taken away from the task without the knowledge of CICS). The CPU to dispatch ratio is calculated by the formula $(\text{CPU time} / \text{dispatch time}) * 100$; and the objective is 80% or higher.

CICS PA is a comprehensive performance reporting and analysis tool for CICS that provides ongoing system management and measurement reports on all aspects of CICS application performance. It uses SMF data as input, and generates reports, showing performance and statistical analysis. Users can forward

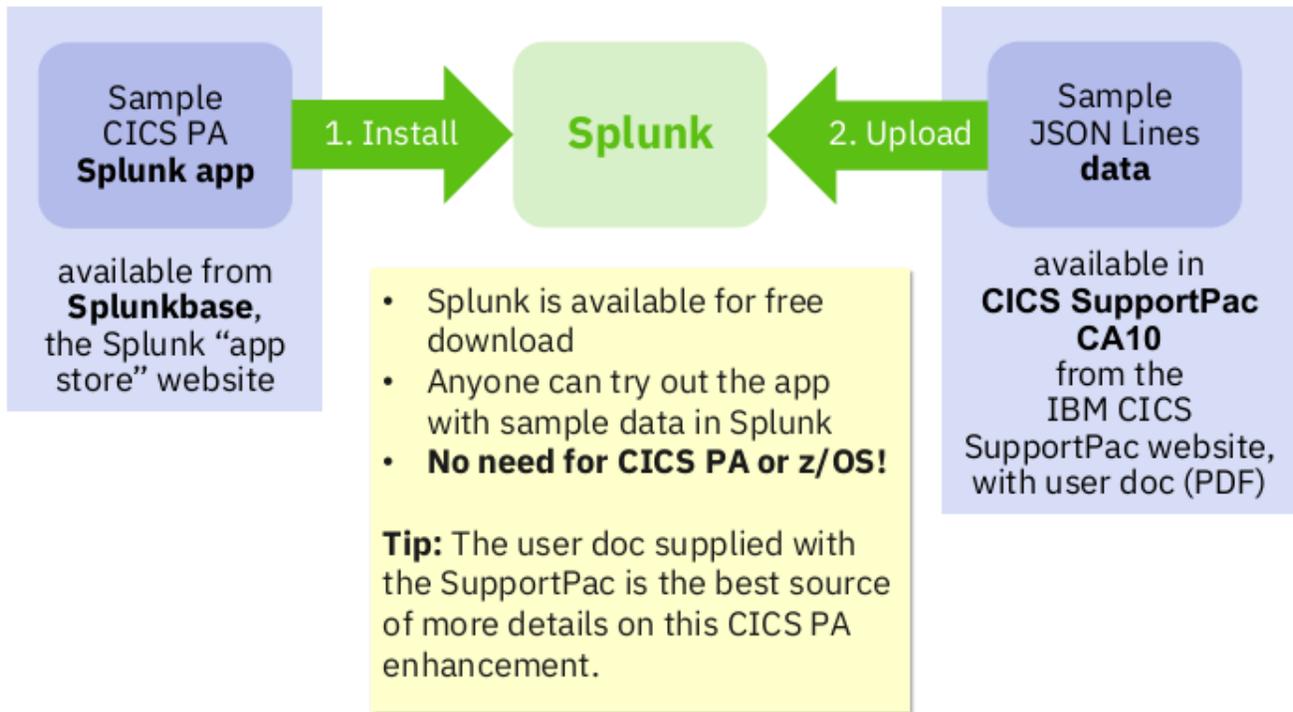


Figure 3: Sample Splunk app and data: free downloads

the data in JSON format to their desired analytics platform.

Until recently, CICS PA has only produced CSV files as output, which have been stored as MVS datasets. Now, it can also output JSON Lines, which can additionally go to TCP and a z/OS Unix file. With TCP, it can be sent to an analytics platform such as Splunk (see Figure 2).

Users can utilize existing CICS PA selection criteria to filter which records to forward to Splunk based on field values. And users decide when, and how frequently, to submit the batch job to run the CICS PA report set that forwards data. The CICS PA data

types that output to JSON Lines are: performance list, performance summary, statistics list, statistics summary, and statistics alerts.

The statistics alerts help to identify potential tuning opportunities. They also identify trends that could lead to poor CICS performance or even unnecessary CICS system outages.

Ezriel then suggested that user group members should try the Splunk app themselves.

He suggested they install Splunk (this app was developed using Splunk 7.3.0) as a native application (eg on Windows) or in a

Docker container. They then need to install the CICS PA Splunk app, which can be done directly from the Splunk Web interface or they could download it from the Splunkbase website, and then install it. They can download the sample data and doc (PDF) from the CICS SupportPac CA10 Web page. Next, they need to upload the sample data to Splunk and use the app to view the sample data. Ezriel then demonstrated these steps. This is illustrated in Figure 3.

Next, Ezriel demonstrated how to forward JSON Lines from CICS PA.

Ezriel then went on to say that JSON Lines from CICS

PA is not Splunk-centric. In fact, the JSON Lines from CICS PA was designed to be ingested by any application that understands JSON Lines. So, the same JSON Lines could be forwarded to Elastic Stack, and users could develop dashboards in Kibana. The documentation supplied with CICS SupportPac CA10 contains a step-by-step guide for this.

A copy of Ezriel Gross' presentation is available for download from the Virtual CICS user group website at virtualcics.hostbridge.com/presentations/CICSPASplunkNov20.pdf.

You can see and hear the whole user group meeting at <https://youtu.be/2cJwUG4Armc>.

Meeting dates

The following meeting dates have been arranged for the Virtual CICS user group:

- On 12 January next year, we have Satish Tanna and Nina Mirski-Fitton, who are both Offering Managers for CICS Tools, zSystems Software at IBM. They'll be discussing, "Driving CICS Development, Operations, and Management Success with CICS Tools".

- The following meeting is on 9 March next year, when Gene Hudders will be presenting.

We are using Zoom for the user group meetings.

CICS articles and blogs

Using OpenID Connect with CICS Liberty by Eric Phan in the CICS part of the IBM Z and LinuxONE Community (19 October 2020). <https://community.ibm.com/community/user/ibmz-and-linuxone/blogs/eric-phan1/2020/10/19/openid-connect-cics-liberty>

On the Move: Data Migration from VSAM to Db2 by Nina Mirski-Fitton in the CICS part of the IBM Z and LinuxONE Community (16 October 2020). <https://community.ibm.com/community/user/ibmz-and-linuxone/blogs/nina-mirski-fitton1/2020/10/15/data-migration-from-vsam-to-db2>

CICS Serviceability Enhancements to Dump and Trace by Darren Beard and Andy Wright in Enterprise Tech Journal (Issue 4 2020). <https://mydigitalpublication.com/publication/?m=23234&i=674278&p=10>

Taking the Risk out of Legacy Modernization

A recent blog at hostbridge.com/taking-the-risk-out-of-legacy-modernization/ looked at legacy modernization.

As enterprises increasingly set their sights on legacy application modernization, a critical decision looms: which modernization strategy to embrace? Organizations seeking to modernize may find themselves at a crossroads, facing a high-stakes decision: modernize-in-place or re-platform? These choices lead in opposite directions.

There's a third option for modernization that doesn't carry the risks, can occur quickly, and at a fraction of the cost – modernization via API. Modernization via API is an approach that:

- Keeps the core business logic on the mainframe
- Moves the user interface (UI) and presentation to a cloud, Web, or mobile platform
- Leverages an API that creates a service layer between the two environments
- Positions the enterprise to modernize-in-place or re-platform later if desired

HostBridge is now offering services, support, expertise, and even free pilot software to help organizations rapidly make CICS applications available.

The modernization via API strategy works in the following way:

- 1 The UI and presentation layer move to the platform or environment that best serves users and customers.
- 2 UI/legacy application interaction occurs via an API. The cloud or mobile-based UI application simply issues an HTTP request to the service layer on the mainframe, where API fulfilment occurs. Services are written in JavaScript and can incorporate new logic as well as orchestrate complex transaction sequences. The service returns output as JSON, XML, or any other standard format.

Using APIs to modernize legacy applications creates a number of advantages. They are: agility, cost, evolution, flexibility, performance, reliability, low risk, and speed.

Perhaps the biggest benefit of modernizing with APIs is the assurance of success:

the journey is short, and the way is not steep.

To ensure modernizations go smoothly, follow these steps:

- 1 Analyse the integrations. Audit the existing interactions that hybrid applications, automations, and macros are having with legacy applications. Integration analytics data allows the IT group to understand all the mainframe interactions. The insights from integration analytics enable prioritization of modernization tasks and simplify the planning process.
- 2 Create the optimal integration architecture. Having APIs invoke RESTful services is ideal for modernization in today's heterogeneous IT infrastructure.
- 3 Fulfill the APIs. Creating services and orchestrating service flows with JavaScript on the mainframe is an excellent way to fulfil modernization APIs.

The HostBridge team provides all the software, tools, processes, training, and services to guide an enterprise on its modernization journey. Building APIs and services for a modernization project is easily accomplished using

the HostBridge JavaScript Engine (HB.js). Contact HostBridge to see a demo of using JavaScript to build APIs, or to arrange for trial HB.js software for prototyping purposes.

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 virtualcics.hostbridge.com 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 trevor@itech-ed.com.

The Virtual CICS user group is free to its members.