

Virtual CICS user group: Newsletter 72

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

Virtual CICS user group presentation

The latest webinar from the Virtual CICS user group was entitled, "New Ways to Analyze CICS Transaction and Statistics Data". It was presented in January by Todd Havekost, Senior z/OS Performance Consultant at IntelliMagic and Brent Phillips, Managing Director – Americas, IntelliMagic.

Todd Havekost is a Senior z/OS Performance Consultant for IntelliMagic. He has over 40 years of IT experience with a primary focus on system and subsystem performance across the IBM Z platform. He joined IntelliMagic in 2016 after experiencing first-hand as a customer the visibility IntelliMagic Vision provides into SMF data, and now spends his days helping

customers derive great value from their own SMF data to improve availability and performance.

Brent Phillips started the presentation by looking at how to get more out of SMF 110 data. He explained that CICS SMF data contains what is needed to:

- 1 Quickly understand and solve almost any problem, suggesting that if you can do it post-mortem, you can do it near-real-time.
- 2 Proactively avoid many common problems, again saying that if you can do it post-mortem, you can do it predictively.

He then went on to suggest it was hard to do because of:

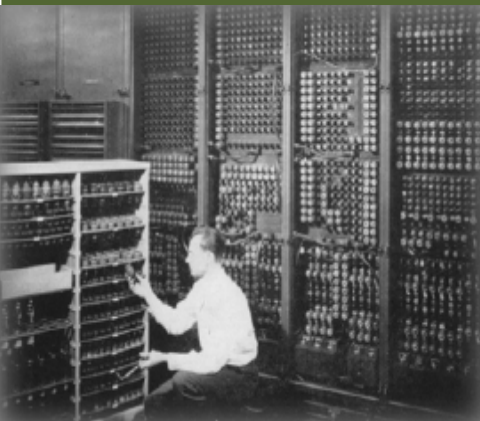
- The volume and complexity of the data

- The need for fast access to the historical data, and flexible ways to view it
- The lack of time from domain experts
- Interpretation versus measurement. (What are good and bad values for all the metrics/areas?)
- Silos of expertise and lack of visibility across areas.

Using modernized analytics for 110 SMF data, it's

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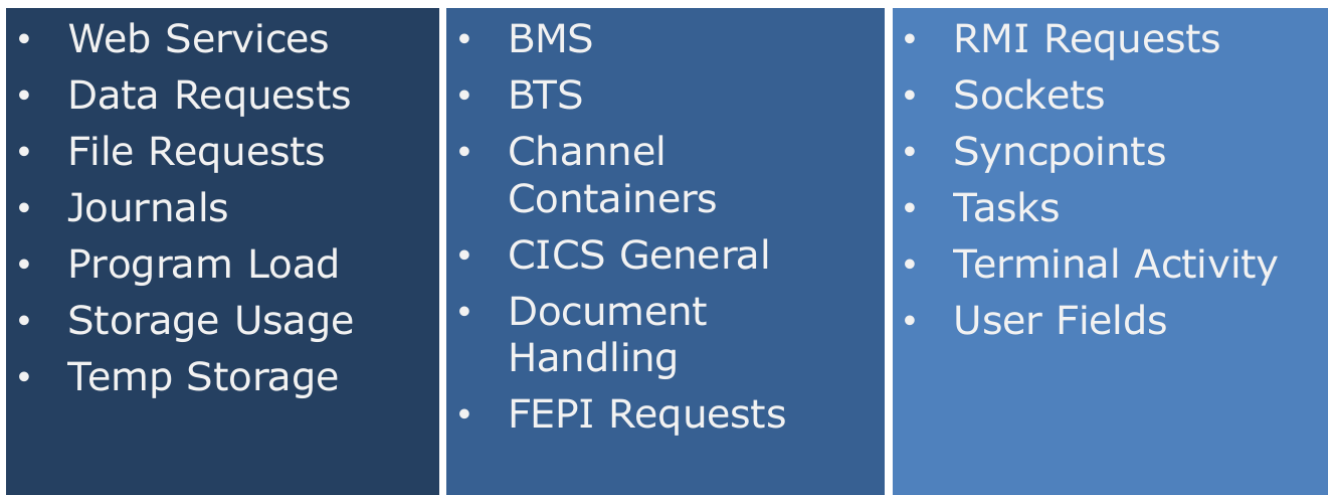


Figure 1: Other CICS transaction metrics

possible to more quickly understand and avoid problems. This augments the human team with machine decisions giving a wealth of insights to rate the most important metrics, and the ability to change detection to highlight statistical anomalies.

In addition, it can provide live access to near-real-time SMF metrics providing users with click-to-query, click-to-compare, and click-to-customize facilities.

Todd Havekost took over the presentation reminding the user group about CICS SMF data. SMF 110.2 has information about CICS Statistics, including data on shared resources within regions. Types include Transaction Manager, Storage Manager, Dispatcher, and File Control. SMF 110.1 has information

about CICS Transactions, including transaction-level data. There are around 400 fields, including about 100 timing 'buckets'.

Todd used IntelliMagic Vision to demonstrate how users could see what was going on in their CICS system. So, for health assessments he said there were over 70 metrics that could be summarized by CICS group and drilled down by region and resources. Examples metrics include: times at MAXTASK, times at TCLASS Limit, times short-on-storage, storage violations, max QR TCB percent busy, waits for VSAM file or LSR pool strings, and DB2ENTRY thread waits.

Todd also demonstrated how to analyse CICS statistics metrics.

He then went on to discuss analyzing CICS

transaction timing metrics, by first looking at transaction response time concepts. He explained that 100 timing 'buckets' are grouped into high-level categories, and that response time equals dispatch time plus suspend time. Suspend time equals wait for first dispatch plus I/O wait time plus other wait time plus uncaptured wait time. The Resource Manager Interface (RMI) times suspend time and elapsed time metrics.

Todd then demonstrated how to analyse other CICS transaction metrics. These are illustrated in Figure 1.

Lastly, Todd demonstrated how to integrate CICS with other types of SMF data to get an integrated view of CICS performance. Other useful SMF records are:

- 70 – CPU at system level

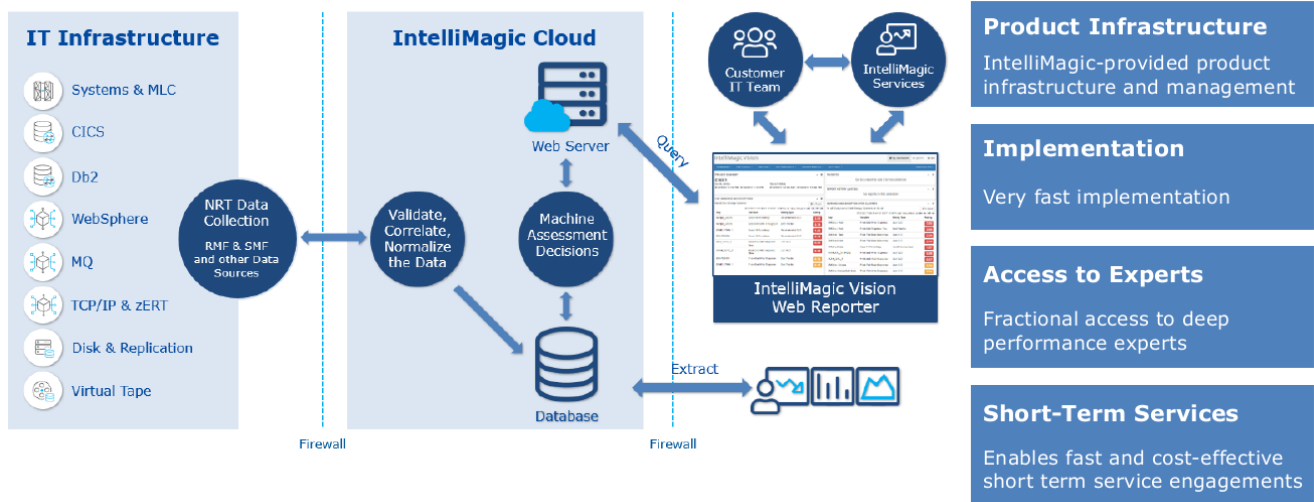


Figure 2: Modernized SMF analytics via cloud delivery

- 72.3 – CPU at service class level, including WLM performance indices, and key transaction metrics
- 101 – Db2 accounting view of CICS transactions
- 116 – MQ accounting view of CICS transactions.

And he showed how to integrate WLM (72.3) and CICS transaction data (110.1).

In summary, using these new ways of analyzing CICS SMF data, it was possible to:

- Proactively identify potential availability and performance risks
- Provide common interfaces into data types across disciplines

(instead of siloed tooling) promoting collaboration

- Offer dynamic navigation to explore data based on current view (instead of static reports)
- Give context-sensitive drill-downs to quickly focus on desired subset of data (even with massive data volumes)
- Use shared customized dynamic dashboards providing common views across an organization.

Brent explained how IntelliMagic were using the cloud to make this possible (see Figure 2).

Allan Winston asked, “Can production and test data be isolated into separate Intellimagic datastores?”

Todd answered by saying that a user could choose to configure their IntelliMagic Vision environment to isolate production and test data into separate datastores. None of our users have chosen to do that, because using a single datastore keeps the user’s options open. In some situations, they will likely choose to view their production and test data separately, which is easily done through leveraging the multitude of filtering and data selection capabilities in IntelliMagic Vision. In other cases, they will likely want to consolidate data from both production and test into common views. One possible use case for that could be analyzing how CPU per transaction compares between a new application

release currently executing in test and the production values. Keeping in mind that IntelliMagic Vision supports data types across the z platform (including Systems, Disk, Tape, Db2, MQ, TCP/IP, as well as CICS) increases the likelihood of encountering scenarios where a user may want to view production and test data together in a common view.

A copy of Todd Havekost's presentation is available for download from the Virtual CICS user group website at <https://itech-ed.com/virtualcics/presentations/CICSAnalyzeJan23.pdf>

You can see and hear the whole user group meeting at <https://youtu.be/eiRFEmIIC28>

Meeting dates

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

- On 7 March we have Larry Strickland, Chief Product Officer at DataKinetics, whose presentation is entitled, "Attention Application Developers – In-memory performance is key to Modernization efforts".
- The following meeting is on 9 May, when the always popular Colin Pearce will be presenting.

We are using Zoom for the user group meetings.

CICS news

On 11 January 2023, IBM announced that CICS Transaction Server for z/OS, Beta Version 6 Release 2 enables development teams to create powerful mixed-language applications, while allowing the operational teams to manage these applications from a single point of control.

The following features and enhancements are delivered as part of CICS Transaction Server for z/OS, Version 6 Release 2, and cover the following areas:

- Installation features
- Developer experience
- System management
- Security
- Performance
- Resilience
- Continuous delivery APARs
- CICS documentation and other information.

More information can be found at <https://www.ibm.com/docs/en/cics-ts/beta?topic=whats-new>

CICS articles and blogs

z/OS Connect v3.0.65 now available: call RESTful APIs from CICS COBOL applications and the z/OS Connect Operator is enhanced to support Routes and Ingress by Kate Bittles in the IBM Z and LinuxONE Community (23 January 2023). You can find the article at: <https://community.ibm.com/community/user/ibmz-and-linuxone/blogs/kate-bittles/2023/01/23/zos-connect-v3065-call-restful-apis>

Virtual Db2 user group

The brand new Virtual Db2 user group also had its first meeting in January, and meets again on 28 March. If you use Db2 for z/OS or have colleagues who do, go to itech-ed.com/virtualdb2 and sign up.

Arcati Mainframe Yearbook

The 2023 edition of the Arcati Mainframe Yearbook is now available. The Yearbook stands out as an excellent reference work for all IBM mainframe professionals. The mainframe evolution section includes a hardware timeline, and a graphic illustrating mainframe

operating system evolution. The glossary of terminology section explains what all those acronyms stand for. There's a guide to sources of information for IBM mainframers. The vendor directory section contains an up-to-date list of vendors, consultants, and service providers working in the z/OS environment. The mainframe strategy section contains articles by industry gurus and vendors. And the mainframe user survey illustrates just what's been happening at users' sites. It's a good way for mainframers to compare what they are planning to do with what other sites have done. The other great thing about the Yearbook – as far as many of the 21,000 people who download it are concerned – is that it is completely **FREE**. You can download it from <https://itech-ed.com/arcati/>

Broadcom Community Area

Broadcom Mainframe Software has created a Virtual CICS User Group page for us on their community platform. It's a place to share ideas, collaborate, ask questions, and connect with Broadcom Mainframe Experts as well.

To register for the platform, visit <https://community.broadcom.com/> and click "Register" in the upper right corner. Once registered, navigate to the Virtual CICS User Group page and click "Join".

I'll be sharing information about upcoming meetings on the page's calendar along with other information related to this user group.

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 itech-ed.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 trevor@itech-ed.com.

The Virtual CICS user group is free to its members.

