



Virtual CICS user group: Newsletter 60



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.

Virtual CICS user group presentation

The latest webinar from the Virtual CICS user group was entitled, "Driving CICS Development, Operations, and Management Success with CICS Tools". It was presented by Satish Tanna and Nina Mirski-Fitton, Offering Managers for CICS Tools, zSystems Software at IBM Systems Unit.

Satish is the Offering Manager for CICS Tools based in Hursley. He has had many roles in his long career with IBM including Performance analyst for CICSplex SM, Services consultant for CICS & CICSplex SM, and Technical Specialist for CICS Tools. He has worked with CICS Tools for the past 18 years and is currently Technical Specialist and Offering Manager for these products.

Nina is the Associate Offering Manager for the CICS Tools portfolio, based in Hursley. She has spoken at several user conferences about how the CICS Tools offerings can support customers with managing and monitoring their CICS workloads in modern

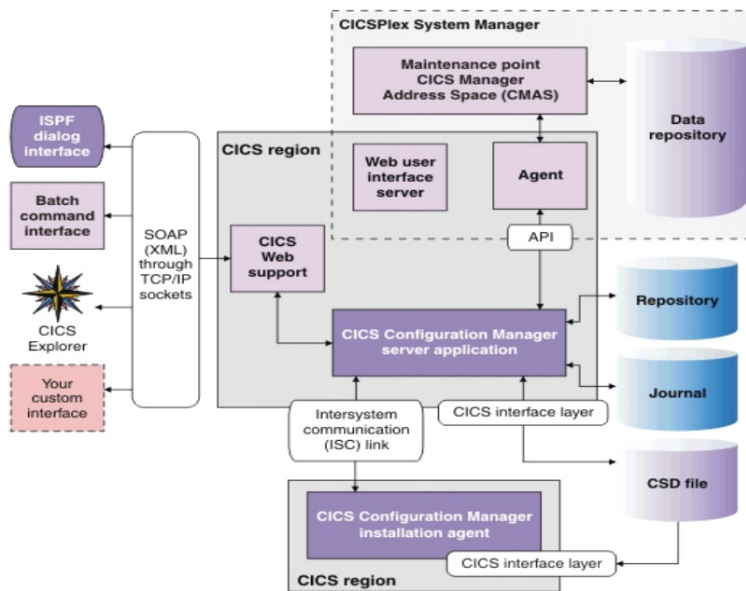
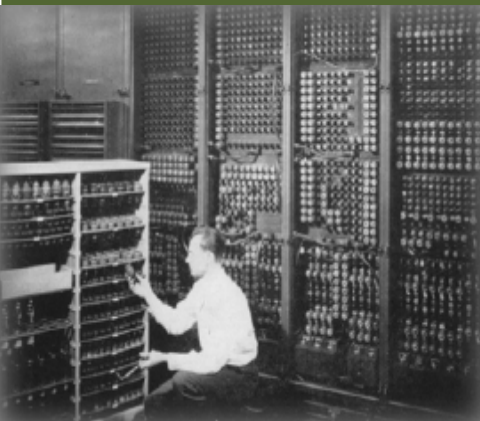


Figure 1: IBM CICS Configuration Manager for z/OS

Contents:

Virtual CICS user group presentation	1
Meeting dates	5
Using z/OS Connect with 3270 Terminal CICS Applications	5
About the Virtual CICS user group	6



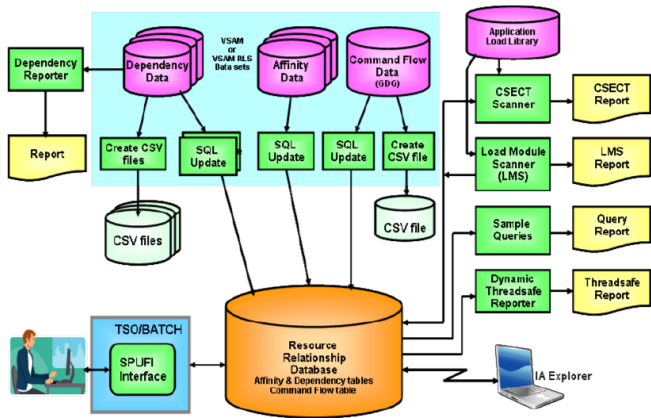


Figure 2: IBM CICS Interdependency Analyzer for z/OS

environments, and has published a number of pieces on topics such as CICS data visualization and workload optimization.

The session started with an overview of the CICS Tools portfolio.

CICS VSAM Recovery for z/OS keeps your systems functional in the event of a disaster by restoring data following either logical or physical damage.

CICS VSAM Transparency for z/OS migrates VSAM data to Db2 simply and smoothly, without the need for rewrites.

CICS Performance Analyzer for z/OS helps users to understand CICS performance, drive efficiencies, and plan for future workload growth.

CICS Interdependency Analyzer for z/OS provides insights into CICS application

relationships to make application changes with speed and confidence.

CICS Configuration Manager for z/OS lets users simply and safely manage complex CICS resource definition changes, with control and auditability.

And CICS Deployment Assistant for z/OS lets users discover, visualize, and manage CICS infrastructure to rapidly deploy new regions to meet demand.

When it comes to creating new, or modernizing existing, applications, the tools to use are IBM CICS Configuration Manager for z/OS, IBM CICS Interdependency Analyzer for z/OS, IBM CICS Configuration Manager for z/OS, and IBM CICS VSAM Transparency for z/OS.

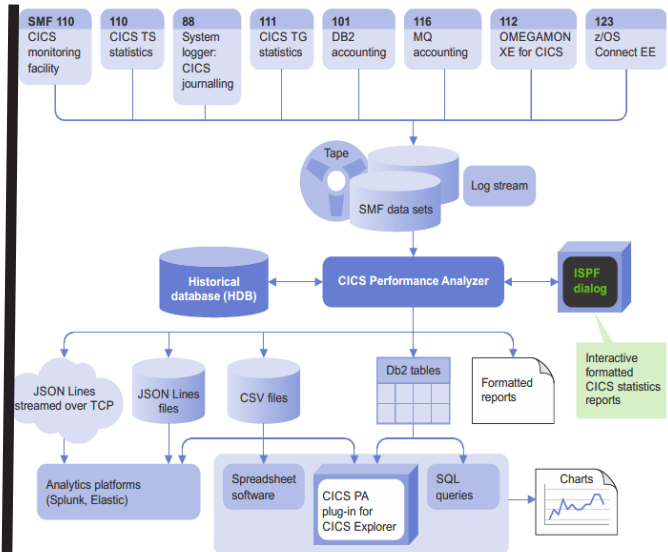


Figure 3: IBM CICS Performance Analyzer for z/OS

IBM CICS Configuration Manager for z/OS (see Figure 1):

- Provides a single point of control for creating and managing CICS resource definitions, whether they reside in CSDs, a CICSplex SM data repository, or zFS.
- Streamlines the resource-definition processes for new application development and deployment, and integration with the change-management products.
- Edits RDO definitions from CSD files or CICSplex SM data repositories in the same session.
- Copies or moves definitions across configurations.

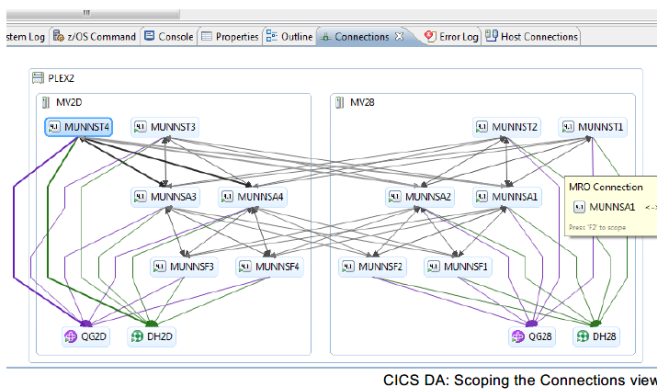


Figure 4: IBM CICS Deployment Assistant for z/OS

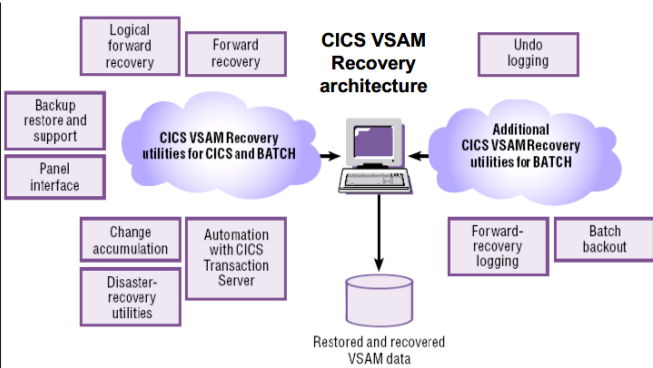


Figure 5: IBM CICS VSAM Recovery for z/OS

- Performs actions such as INSTALL and NEWCOPY on multiple definitions, across multiple active CICS regions, in a single step.

IBM CICS Interdependency Analyzer for z/OS (see Figure 2) provides:

- A dynamic discovery tool to understand the relationships, dependencies, and flow of CICS Transaction Server applications.
- An intuitive plug-in for IBM CICS Explorer.
- The ability to see uses and where-used relationships.
- Faster implementation of IBM CICSplex SM workload management.
- Highlighting of service-enablement candidates.
- Resource use and dependencies by platform.

- REST APIs.

REST APIs for CICS IA enables the use of modern UI libraries for better visualization of data. The REST API architecture enables loose coupling between UI and business logic. It enables easy integration with other tools. Complex reports can be generated using modern reporting frameworks. And it enables users to create test cases for user applications based on data collected by CICS IA).

IBM CICS VSAM Transparency for z/OS lets users:

- Move critical CICS and batch VSAM data to Db2 with no program changes.
- Integrate their data with new and existing Db2 applications.
- Access Db2 data 24x7.
- Automate VSAM-to-Db2 mapping.

It's low risk because of the staged migration of individual VSAM files, and there's a dual-mode testing facility.

When it comes to monitoring and managing applications and CICS systems, the tools to use are IBM CICS Configuration Manager for z/OS, IBM CICS Interdependency Analyzer for z/OS, IBM CICS Deployment Assistant for z/OS, and IBM CICS Performance Analyzer for z/OS.

IBM CICS Configuration Manager for z/OS has a number of benefits:

- A single point of control for creating and managing CICS resource definitions, whether they reside in CSDs, a CICSplex SM® data repository, or zFS.
- Users can automate resource definition management by grouping a set of resource definitions into a change package, with defined

approval requirements specifying the number and roles of the required approvers for every change package.

- It enables authorized users to copy one or more resource definitions across multiple CICS configurations with one command.
- Users can select a set of transformation rules for migration schemes, enabling a resource definition to be modified during an upgrade to match its target environment, and search and replacement of definitions within a single CICS configuration.
- Users can gain a detailed understanding of the current definitions in their system, such as which definitions have become redundant or if any have been defined twice, with advanced search and display capabilities to explore resource relationships.

IBM CICS Interdependency Analyzer for z/OS has the following advantages:

- Dynamic discovery tool to understand the relationships, dependencies and flow of CICS Transaction Server applications.

- Advanced program analysis using Command Flow.
- Identification of threadsafe and non-threadsafe programs.
- Isolation and removal of affinities.
- Highlighting of service-enablement candidates.
- Resource use and dependencies by platform.

IBM CICS Performance Analyzer for z/OS (see Figure 3) provides:

- Comprehensive CICS Transaction Server performance analysis and reporting.
- Over 250 customizable report forms.
- Batch reporting for more than 95 CICS Transaction Server and CICS Transaction Gateway (CICS TG) statistics.
- Subsystem reporting for Db2, MQ, and OMEGAMON, and soon to include z/OS Connect Enterprise Edition.
- Transaction tracking and transaction profiling reports.
- Trending and capacity planning with historical database – know when

to increase resource availability during high demand cycles.

- View reports through CICS PA's own interfaces, CICS Explorer, or an external analytics platform.

IBM CICS Deployment Assistant for z/OS (see Figure 4) provides:

- Support for IBM CICS Transaction Server 5.6.
- RESTful API to access model, invoke discovery, or initiate cloning of CICS regions.
- Discover CICS regions and dependencies, and over 30 entity types.
- Export model in CSV format for external reporting.
- Provisioning wizards to create new IBM CICSplex System Manager infrastructure.
- TCP/IP usage report.

When it comes to troubleshooting, the Tools to use are: IBM CICS Performance Analyzer for z/OS, IBM CICS Configuration Manager for z/OS, IBM CICS VSAM Recovery for z/OS, and IBM CICS VSAM Recovery for z/OS.

IBM CICS Configuration Manager for z/OS can:

- Provide an audit trail of changed resources, dates and times, and the list of approvers, along with the ability to produce a range of reports.
- Reverse changes, reverting to previous definitions, any number of states back, which enables you to test an upgrade with confidence.
- Back out all changes in a single step if required.

IBM CICS Performance Analyzer for z/OS can produce output in JSON Lines format, which can be forwarded to Splunk.

IBM CICS VSAM Recovery for z/OS (see Figure 5) provides:

- Forward recovery for CICS-managed VSAM data
- Forward recovery and back-out for batch VSAM data
- Replication logging for IBM GDPS Active/Active sites
- NOTIFY support for IBM and non-IBM backups
- Support for backups created by Backup-While-Open (BWO)

- Automated recovery.

A copy of Satish Tanna and Nina Mirski-Fitton's presentation is available for download from the Virtual CICS user group website at virtualcics.hostbridge.com/presentations/CICSToolsJan21.pdf.

You can see and hear the whole user group meeting at https://youtu.be/SOFUc_Tv3k4.

Meeting dates

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

- On 9 March, we have Eugene Hudders, President of C\TREK Corporation. He'll be discussing, "CICS Health Check – What Does It Entail?"
- The following meeting is on 11 May when Russ Teubner, CEO and co-founder of HostBridge Technology will be presenting.

We are using Zoom for the user group meetings.

Using z/OS Connect with 3270 Terminal CICS Applications

A recent blog at <https://www.hostbridge.com/using-z-os->

[connect-with-3270-terminal-cics-applications/](https://www.hostbridge.com/using-z-os-connect-with-3270-terminal-cics-applications/) looked at a problem sites face when using ZCEE with screen-based CICS applications.

IBM z/OS® Connect Enterprise Edition (ZCEE) is IBM's strategic REST gateway that enables valuable IBM z applications to participate in the API economy. This IBM solution is used to transform z assets into APIs that make it possible to include the mainframe into hybrid IT strategies. Using APIs to make mainframe assets available as REST/JSON services is an ideal way to enable the digital transformation taking place within almost every enterprise. Well designed and implemented RESTful APIs can implement quickly and optimally utilize expensive computing and scarce human resources.

There is one class of z applications, however, that resists quick, easy, reliable, and high-performing integration: screen-based (3270) CICS applications. And, despite the fact that many of these applications are decades old, there's a reason they are still around: they are mission-critical. And because they are core business applications, it's imperative for the organizations that rely on

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

them to integrate them with non-mainframe applications.

These legacy, screen-based applications are difficult to integrate via an API because their business and presentation logic are intertwined. Historically, the most common approach for integrating them is to use terminal emulation and screen scraping to access the business logic and data locked within these applications. This approach works, but has serious limitations.

ZCEE does not support native integration with screen-based CICS apps. It must therefore rely on an ancillary solution to do so.

Understandably, IBM promotes Host Access Transformation Services (HATS) as the way to let ZCEE interact with screen-based CICS applications. A far better approach is to create services running inside CICS that are invoked via APIs. Because these

services run inside CICS, they can exploit the CICS 3270 bridge interface. The advantage of this approach is accessing CICS field values by name before the application outputs a screen. The benefits of this loose coupling integration approach are significant: it's resilient; it scales well; and it's easy to add new logic without changing the CICS application.

The HostBridge JavaScript Engine (HB.js) enables ZCEE to access 3270 CICS applications without screen scraping. The HB.js scripts that enable integration can also include any additional logic that is helpful, eg for orchestration.

When integrating screen-based CICS applications, ZCEE users can experience a faster and greater return on their investment by using CICS web services. ZCEE is pluggable and extensible, allowing third party providers like HostBridge to participate in expanding the z/OS assets you can expose with an API. The result is a highly-responsive, resilient integration that complements ZCEE, scales extremely well, and uses mainframe resources in the most optimal way.

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.