Virtual CICS user group presentation

The latest webinar from the Virtual CICS user group was entitled, “CICS Web services – bridging two worlds”. It was presented by Robert Barnes, CEO at Jazz Software.

Robert Barnes is an experienced developer, entrepreneur, and IT and Business Consultant. He authored the textbook “PL/1 for Programmers” published in 1979 by Elsevier North-Holland. He founded a successful software development company that became one of New Zealand's significant software exporters in the

Figure 1: Bridging these different Worlds needs CICS Web services and client apps
1980s with its product MANASYS, supported by Fujitsu and closely integrated with Fujitsu’s own mainframe software. In 2012 he founded Jazz Software Ltd, re-imagining MANASYS for the current world of Windows, Web, and mobile apps working with mainframes.

Robert Barnes started his presentation by identifying the problem faced by mainframe sites: how to get mainframe data to and from the client world of mobile apps and Web pages? Typically, one team develops CICS Web services, and another team works on client apps. It’s not easy getting them to understand each other. They talk different languages (see Figure 1), and things get lost in translation.

CICS Web services are like classical CICS programs, they start with an input message, they do something, and they send back an output message. But there are huge differences:

- The messages are not 3270 screens, they are whatever we want. Any length, any format.
- There is no COMMAREA to pass data from step to step of a conversation. Everything must be in the message passed in from the client. Without COMMAREA we can’t save a reference copy, so how do we manage pseudo-locking?
- Service and client must communicate in a standard format. They don’t speak COBOL, we don’t speak Java. We need to exchange information in a standard format that all can understand. Today the standard is JSON.
- And the clients aren’t just displays, they have their own logic. They might do anything.

Robert then on to show the flow of work in a CICS Web service – see Figure 2.

He followed that up with a demonstration of some real-
life examples of updating an employee record.

He then went on to demonstrate the use of MANASYS Jazz software, which could be used to tighten up the code, apply extra rules, and generate a Web service.

Robert showed how over two and half thousand lines of code can be generated quickly using the tool.

Next, he showed that the software could generate a client-side interface encapsulating the service rules. It does this using .Net CORE, which works on Windows, Linux, Android, and iOS. As Figure 3 illustrates, this allows the translation of messages from the two platforms.

Robert then went on to describe how these interfaces are set up.

The first thing to do is to create a C# project to hold all the interfaces for the Web service, naming it with the service name used to generate the programs. Users then configure the Jazz Workbench so that it knows where to find this project.

Next create an interface. Robert recommended naming them after the program, eg JSPG2Client is the interface for service program JSPG2.

z/OS users need to check that the JSON input and output message definitions are in their local Jazz Project Folder, and are the current version. They will have been created on the mainframe and need to be copied back to this folder.

With the JSON in the correct folder, generating the interface takes only two clicks: click on ‘Client’ then ‘Create Interface’. For JSPG2Client, about 1000 lines of C# are immediately created, about 900 in the logic of JSPG2Client, and about 100 in the request and response objects.

Figure 4 shows the CICS Web service, program
JSPG2, running on the mainframe, on the right-hand side. JSPG2Client, the C# interface object, is the middle part. The final task is to write the actual client, the part on the left. This has to be written by the users, depending on what they are trying to achieve.

A copy of Robert Barnes’ presentation is available for download from the Virtual CICS user group website at https://virtualcics.hostbridge.com/presentations/CICS2worldsMay22.pdf

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

Meeting dates

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

- On 12 July we have Stewart Francis, Lead Software Engineer at IBM, who will be discussing, “Developing and modernizing CICS applications with Ansible”.
- The following meeting is on 13 September, when Russ Teubner, CEO and co-founder at HostBridge, will be discussing “The impact of macros on CICS workloads”.

We are using Zoom for the user group meetings.

CICS articles and blogs

Why you should consider using the Elastic Stack(TM) to view your CICS TS data by Nina Mirski-Fitton in the CICS part of the IBM Z and LinuxONE Community (27 April 2022), You can find the article at: https://community.ibm.com/community/user/ibmz-and-linuxone/blogs/nina-mirski-
Increase business agility with CICS Transaction Server by Mark Cocker in the CICS part of the IBM Z and LinuxONE Community (5 April 2022). You can find the article at: https://community.ibm.com/community/user/ibmz-and-linuxone/blogs/mark-cocker1/2022/03/21/increase-business-acceleration-with-cics-ts-61

CICS IA - Easy access to CICS IA jobs via z/OS explorer by Preethikashree M in the CICS part of the IBM Z and LinuxONE Community (1 April 2022). You can find the article at: https://community.ibm.com/community/user/ibmz-and-linuxone/blogs/preethikashree-m/2022/04/01/easy-access-to-cics-ia-jobs-via-zos-explorer

### Sponsorship opportunity

From June onwards, Rocket Software has decided to focus its budget on other areas and withdraw sponsorship from the Virtual CICS user group.

The user group has been in existence since 2010 and is well-respected among users of CICS. The user group gives its sponsors an opportunity to show that they are working with, and helping to build, the user community.

Currently, the user group meets six times a year with a presentation filling most of the meeting. In the other months, members receive a newsletter. And there is a Facebook page, a Twitter feed, and a LinkedIn group keeping members up-to-date with information about new products or product updates, and articles about IMS.

So, from June, co-sponsorship is available for the user group, and without sponsorship, the user group may not be able to continue.

If you work for a software vendor and can see the benefits of sponsorship, please contact me (trevor@itech-ed.com) for a without prejudice conversation.

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.