

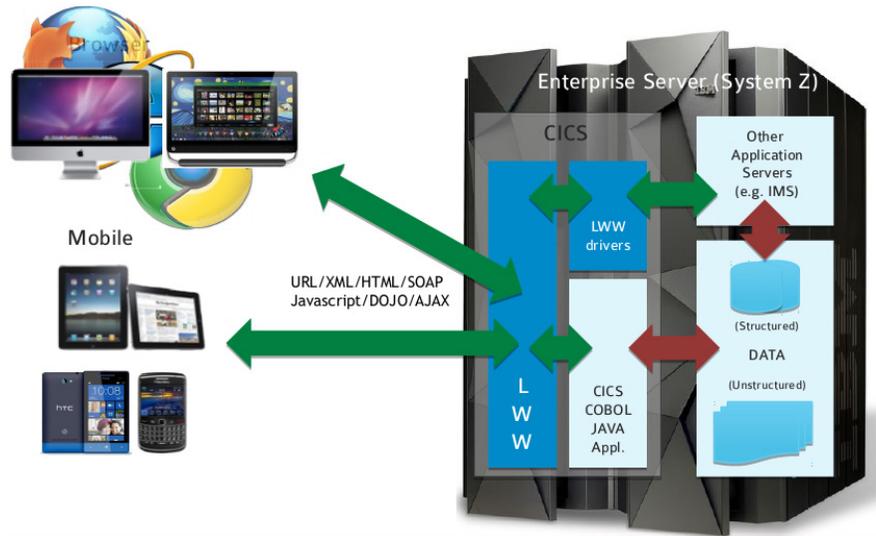


Welcome to the Virtual CICS user group newsletter. The Virtual CICS user group at [www.fundi.com/virtualcics](http://www.fundi.com/virtualcics) is an independently-operated vendor-neutral site run by and for the CICS user community.

## Virtual CICS user group presentation

The latest webinar from the Virtual CICS user group was entitled, "Application Modernization with LWW framework for CICS", and was presented by Bobby Tjassens Keiser, Technical Architect with Y-Innovate.

Bobby started as a mainframe developer on z in 1998 and has remained true to the platform ever since in various roles of development, operations, and architecture. Bobby is not a first-generation mainframer, but 'grew up on the mainframe' while the Internet changed the world of IT, learning both mainframe skills, like Assembler programming, and Web skills, like HTML and Javascript. In 2013, Bobby started collaborating with ICU IT Services working on a first concept of LWW, leading, not long after, to the



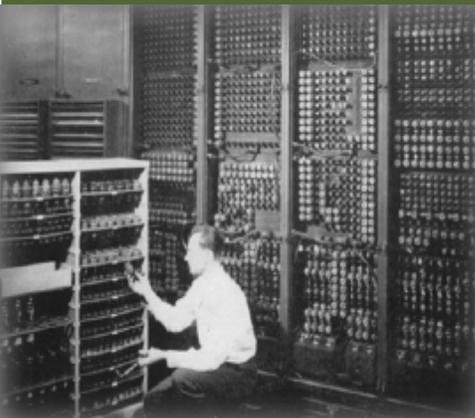
**Figure 1: LWW architecture**

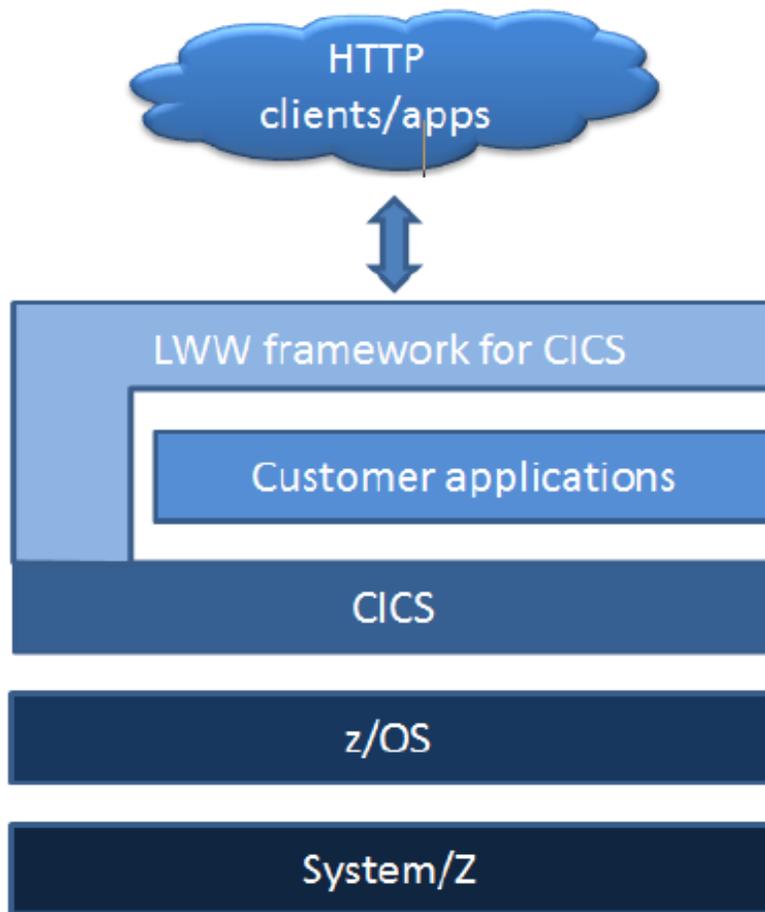
starting up of Y-Innovate, with the goal to bring application innovation to enterprises.

Bobby Tjassens Keiser started his presentation by explaining what LWW was (see Figures 1 and 2). He said that LWW is a framework for CICS that allows users to exploit CICS's capabilities of

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**Figure 3: LWW framework**

acting as a Web server and provides ways to easily integrate with traditional CICS applications (eg COBOL/PLI/Assembler).

It allows users to reuse existing infrastructure as well as existing applications.

It is written in Assembler and makes use of CICS Web Support, so it runs in regular CICS transactions.

Other than good old regular CICS, it requires none of IBM's complicated 'new

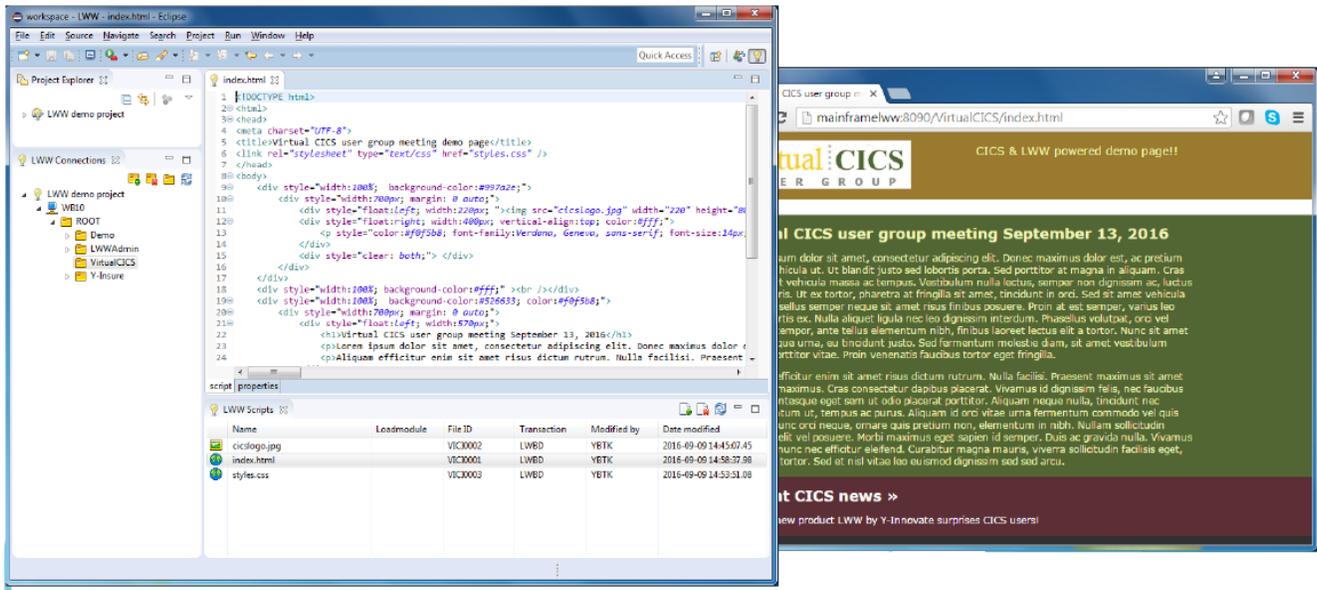
workload' infrastructure (like Liberty, z/Connect, Worklight, DataPower, etc).

It has nothing to do with screen scraping, but does have everything to do with Web-enabling CICS applications.

LWW consists of: a custom hierarchical file system, which can be in a VSAM file or in DB2, stores; Web content (files in folders in folders etc) but with LWW-specific file properties (like

MIME type, CICS transaction code, etc); a CICS install transaction that automatically generates the necessary CICS resource definitions (like URIMAPs and DOCUMENT TEMPLATES); LWW CICS software that hosts the contents of the LWW file system (it gets control at each HTTP-driven request to CICS, constructs an HTTP response based on the requested file in the file system, optionally passes control to user-written modules for dynamic content and returns the HTTP response to the requesting client); an Eclipse plug-in, which is the user interface for managing the contents of the file system (there's also a Web interface for emergency use); and an import/export utility for managing the file system(s) in batch.

What happens when a Web request hits CICS+LWW? The standard CICS Web Support initial actions are performed, meaning the best matching URIMAP definition is found to determine what program(s) need to get control. Because the URIMAPs are created by the LWW install transaction, they're set up in such a way that LWW framework gets control first, running under an alias transaction id that was specified on the file or folder in the file system. LWW reads the requested file in its file system. If it's



**Figure 3: Eclipse and Web views**

an image or other binary content, LWW just sends it as an HTTP response (accompanied by the proper HTTP headers). If it's a text file, LWW constructs a CICS DOCUMENT and places the static contents in that DOCUMENT.

LWW will then look for 'special tags', which are the real 'magic' LWW performs.

The tag `<% INCLUDE(...) %>` will cause LWW to find another file in the repository and insert its contents in the existing DOCUMENT at the position where the tag was found.

The tag `<% LINK(...) %>`, will cause LWW to place a BOOKMARK at the position where the tag was found and to do an EXEC CICS LINK to the specified program. LWW uses

channels and containers to pass relevant information to the user program, like the BOOKMARK name, so the user program can use the CICS DOCUMENT API to insert whatever dynamic content at the proper position in the response text.

The tag `<% BOOKMARK(...) %>` allows users to define their own BOOKMARK that a user program linked to with a LINK-tag can also use.

An example of how LWW works is shown in Figure 3.

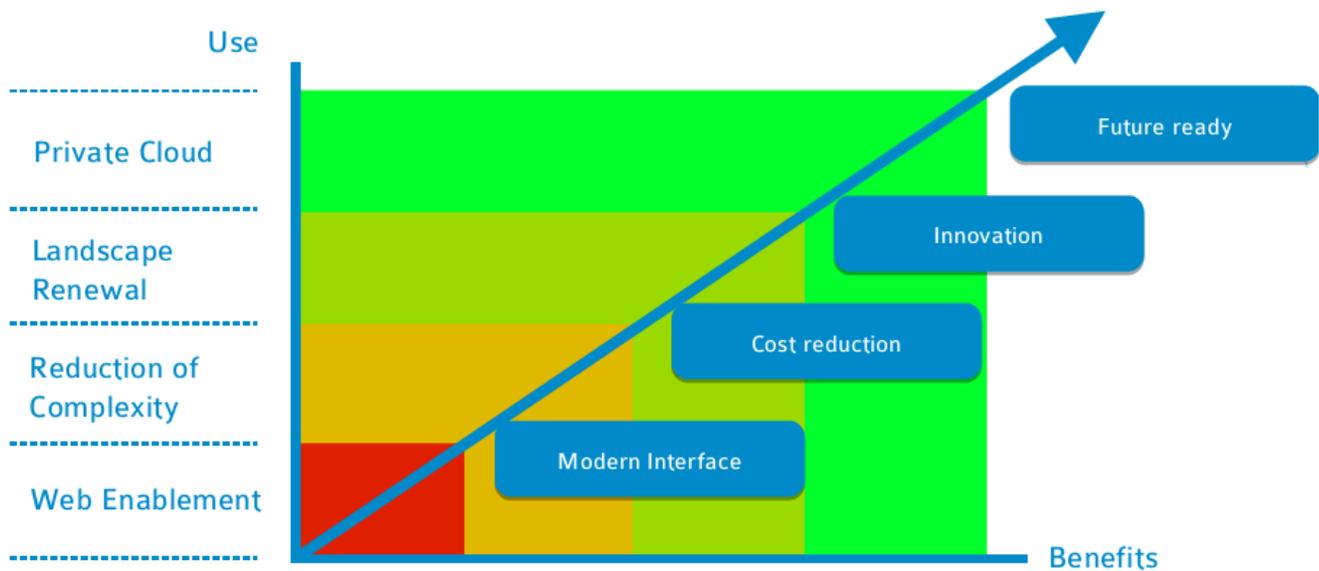
Bobby suggested that the advantages of using LWW were:

- Moderization of your applications
- Fast, agile, modern application platform

- Easily replaces 3270 green screens
- Revalues past CICS investment
- Reduces programming costs by up to 90%
- Decomplicates a site's infrastructure stack.

Example types of use for LWW include:

- Replacing existing 3270 interfaces, thereby prolonging an application's life span
- Providing a modern Web interface to new CICS applications
- Simplifying interfacing with other (Web) applications (HTTP, Web services, XML, JSON, REST)



**Figure 4: Use of LWW**

- Quickly create DevOps-related Web apps like Web forms for development to request new CICS definitions, RACF definitions, automate testing of JSON services, etc.

The uses of LWW are shown in Figure 4.

A copy of Bobby Tjassens Keiser’s presentation is available for download from the Virtual CICS user group Web site at [www.fundi.com/virtualcics/presentations/CICSLWWSep16.pdf](http://www.fundi.com/virtualcics/presentations/CICSLWWSep16.pdf).

You can see and hear the whole user group meeting by downloading the WMV file from [www.fundi.com/virtualcics/presentations/2016-09-13meeting.wmv](http://www.fundi.com/virtualcics/presentations/2016-09-13meeting.wmv).

### Meeting dates

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

- On 8 November 2016, we have Ezriel Gross talking about “CICS Tools: Tuning CICS with CICS Performance Analyzer”.

In today’s world of ever-expanding costs, pressure to reduce expenditure, and lack of skilled resources, tuning CICS is more critical than ever. This session introduces IBM’s premier CICS tuning product, CICS Performance Analyzer, describes the functions and features of this product, and present a number of real world situations where the product greatly reduces

the cost and effort to solve performance issues.

- The following meeting is on 17 January 2017, when we have a speaker from IBM .

We will be using Citrix GoToMeeting for the user group meetings.

### Recent CICS articles

*What’s new with CICS Explorer 5.3 Fix Pack 8?* by Steve Bolton on developerWorks (30 September 2016). You can find the article at: <https://developer.ibm.com/cics/2016/09/30/whats-new-with-cics-explorer-5-3-8/>

*A customised web analyser program to police*

*CICS Explorer access levels* by Darren Beard on developerWorks (12 September 2016). You can find the article at: <https://developer.ibm.com/cics/2016/09/12/a-customised-web-analyser-program-to-police-cics-explorer-access-levels/>

*Asynchronous vs. sequential processing and the CICS Asynchronous API* by Amy Reeve on developerWorks (24 August 2016). You can find the article at: <https://developer.ibm.com/cics/2016/08/24/asynchronous-vs-sequential-processing-and-the-cics-asynchronous-api/>

*CICS CM 5.3 enhances lifecycle management of CICS resource definitions in unconnected environments* by Satish Tanna on developerWorks (19 August 2016). You can find the article at: <https://developer.ibm.com/cics/2016/08/19/cics-configuration-manager-for-zos-v5-3-apos-pi62341-provides-enhanced-capabilities-for-lifecycle-management-of-cics-resource-definitions-in-unconnected-environments/>

[ibm.com/cics/2016/08/19/cics-configuration-manager-for-zos-v5-3-apos-pi62341-provides-enhanced-capabilities-for-lifecycle-management-of-cics-resource-definitions-in-unconnected-environments/](https://developer.ibm.com/cics/2016/08/19/cics-configuration-manager-for-zos-v5-3-apos-pi62341-provides-enhanced-capabilities-for-lifecycle-management-of-cics-resource-definitions-in-unconnected-environments/)

## Sponsorship opportunity

Are you missing a great opportunity to advertise your CICS software?

The Virtual CICS user group is now offering software vendors the opportunity to advertise their products in a number of ways. You could have an advert on the home page of the Web site (at [www.fundi.com/virtualcics](http://www.fundi.com/virtualcics)), you could advertise in the newsletter, and/or you could advertise in the monthly e-mails sent to members of the user group.

E-mail [trevor@itech-ed.com](mailto:trevor@itech-ed.com) for full information about marketing opportunities with the Virtual CICS 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 [www.fundi.com/virtualcics](http://www.fundi.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](mailto:trevor@itech-ed.com).

The Virtual CICS user group is free to its members.



On Twitter use the hashtag **#virtualcics**