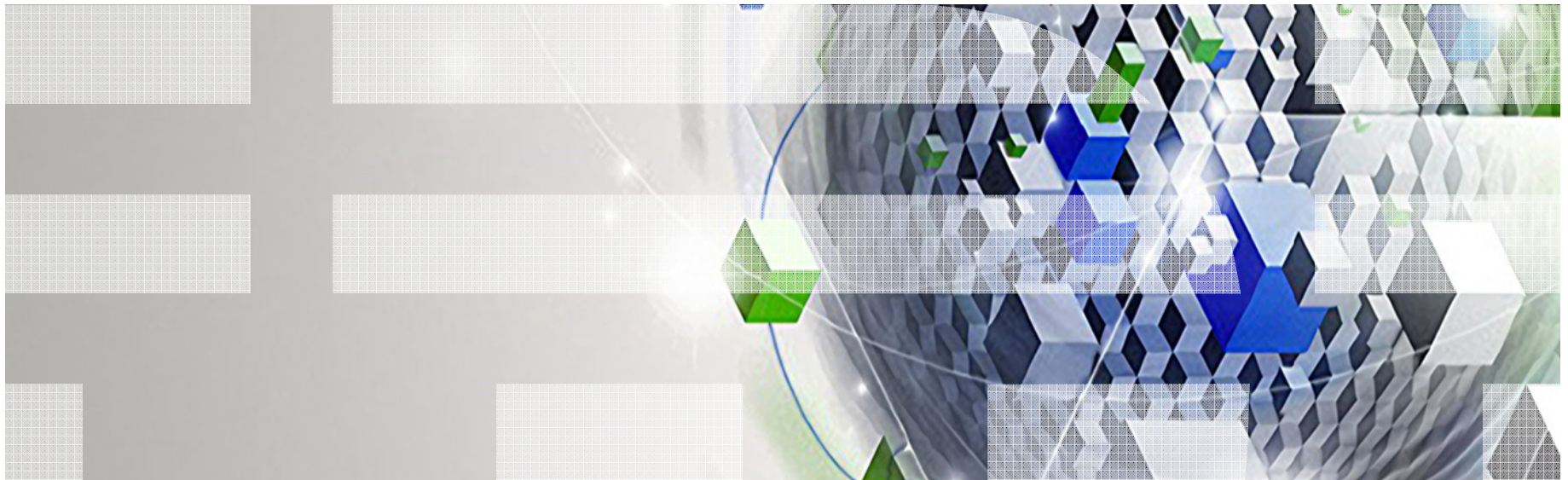


CICS TS for z/VSE Update

including CICS connectivity options



Ingo Franzki



Trademarks

The following are trademarks of the International Business Machines Corporation in the United States, other countries, or both.

Not all common law marks used by IBM are listed on this page. Failure of a mark to appear does not mean that IBM does not use the mark nor does it mean that the product is not actively marketed or is not significant within its relevant market.

Those trademarks followed by ® are registered trademarks of IBM in the United States; all others are trademarks or common law marks of IBM in the United States.

For a complete list of IBM Trademarks, see www.ibm.com/legal/copytrade.shtml:

*, AS/400®, e business (logo)®, DBE, ESCO, eServer, FICON, IBM®, IBM (logo)®, iSeries®, MVS, OS/390®, pSeries®, RS/6000®, S/30, VM/ESA®, VSE/ESA, WebSphere®, xSeries®, z/OS®, zSeries®, z/VM®, System i, System i5, System p, System p5, System x, System z, System z9®, BladeCenter®

The following are trademarks or registered trademarks of other companies.

Adobe, the Adobe logo, PostScript, and the PostScript logo are either registered trademarks or trademarks of Adobe Systems Incorporated in the United States, and/or other countries.

Cell Broadband Engine is a trademark of Sony Computer Entertainment, Inc. in the United States, other countries, or both and is used under license therefrom.

Java and all Java-based trademarks are trademarks of Sun Microsystems, Inc. in the United States, other countries, or both.

Microsoft, Windows, Windows NT, and the Windows logo are trademarks of Microsoft Corporation in the United States, other countries, or both.

Intel, Intel logo, Intel Inside, Intel Inside logo, Intel Centrino, Intel Centrino logo, Celeron, Intel Xeon, Intel SpeedStep, Itanium, and Pentium are trademarks or registered trademarks of Intel Corporation or its subsidiaries in the United States and other countries.

UNIX is a registered trademark of The Open Group in the United States and other countries.

Linux is a registered trademark of Linus Torvalds in the United States, other countries, or both.

ITIL is a registered trademark, and a registered community trademark of the Office of Government Commerce, and is registered in the U.S. Patent and Trademark Office.

IT Infrastructure Library is a registered trademark of the Central Computer and Telecommunications Agency, which is now part of the Office of Government Commerce.

* All other products may be trademarks or registered trademarks of their respective companies.

Notes:

Performance is in Internal Throughput Rate (ITR) ratio based on measurements and projections using standard IBM benchmarks in a controlled environment. The actual throughput that any user will experience will vary depending upon considerations such as the amount of multiprogramming in the user's job stream, the I/O configuration, the storage configuration, and the workload processed. Therefore, no assurance can be given that an individual user will achieve throughput improvements equivalent to the performance ratios stated here.

IBM hardware products are manufactured from new parts, or new and serviceable used parts. Regardless, our warranty terms apply.

All customer examples cited or described in this presentation are presented as illustrations of the manner in which some customers have used IBM products and the results they may have achieved. Actual environmental costs and performance characteristics will vary depending on individual customer configurations and conditions.

This publication was produced in the United States. IBM may not offer the products, services or features discussed in this document in other countries, and the information may be subject to change without notice. Consult your local IBM business contact for information on the product or services available in your area.

All statements regarding IBM's future direction and intent are subject to change or withdrawal without notice, and represent goals and objectives only.

Information about non-IBM products is obtained from the manufacturers of those products or their published announcements. IBM has not tested those products and cannot confirm the performance, compatibility, or any other claims related to non-IBM products. Questions on the capabilities of non-IBM products should be addressed to the suppliers of those products.

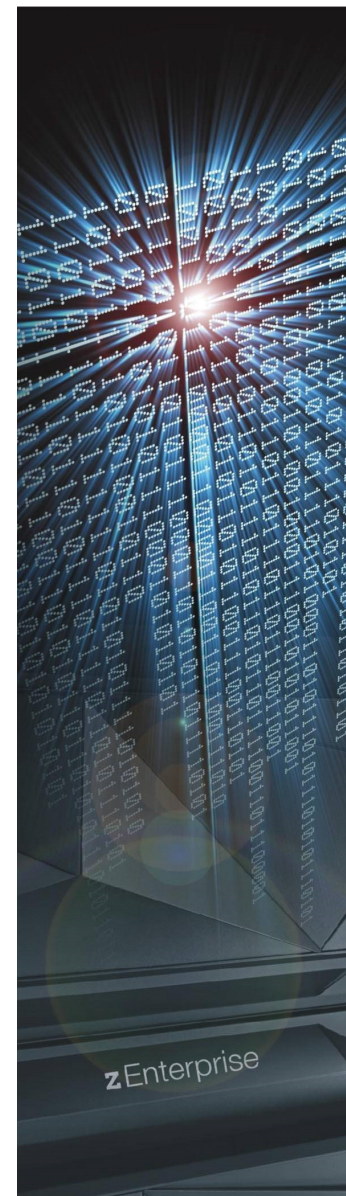
Prices subject to change without notice. Contact your IBM representative or Business Partner for the most current pricing in your geography.

Notice Regarding Specialty Engines (e.g., zIIPs, zAAPs and IFLs):

- Any information contained in this document regarding Specialty Engines ("SEs") and SE eligible workloads provides only general descriptions of the types and portions of workloads that are eligible for execution on Specialty Engines (e.g., zIIPs, zAAPs, and IFLs). IBM authorizes customers to use IBM SE only to execute the processing of Eligible Workloads of specific Programs expressly authorized by IBM as specified in the "Authorized Use Table for IBM Machines" provided at http://www.ibm.com/systems/support/machine_warranties/machine_code/aut.html ("AUT").
- No other workload processing is authorized for execution on an SE.
- IBM offers SEs at a lower price than General Processors/Central Processors because customers are authorized to use SEs only to process certain types and/or amounts of workloads as specified by IBM in the AUT.

Agenda

- **CICS Overview**
- **CICS TS V2.1 – z/VSE 6.1**
 - Channels and Containers
- **CICS TS V2.2 – z/VSE 6.2**
 - HTTP 1.1 Support
 - CICS Web Support with OpenSSL
- **CICS Connectivity options**
 - CICS Explorer
 - CICS Web Support
 - CICS Transaction Gateway
 - z/VSE SOAP Engine
 - z/VSE REST Engine



CICS TS for VSE History

- **CICS TS for VSE/ESA 1.1.0 - released June 1999**
 - VSE ported up to 100 OS/390 services
 - New CICS TS port from OS/390
 - Released with VSE/ESA 2.4

- **CICS TS for VSE/ESA 1.1.1 - September 2000**
 - Provides CICS Web Support (CWS), 3270 Bridge, REXX for CICS, Subsystem Storage Protection (SSP), ...
 - Released with VSE/ESA 2.5

- **CICS Explorer “display only” support - released June 2012**

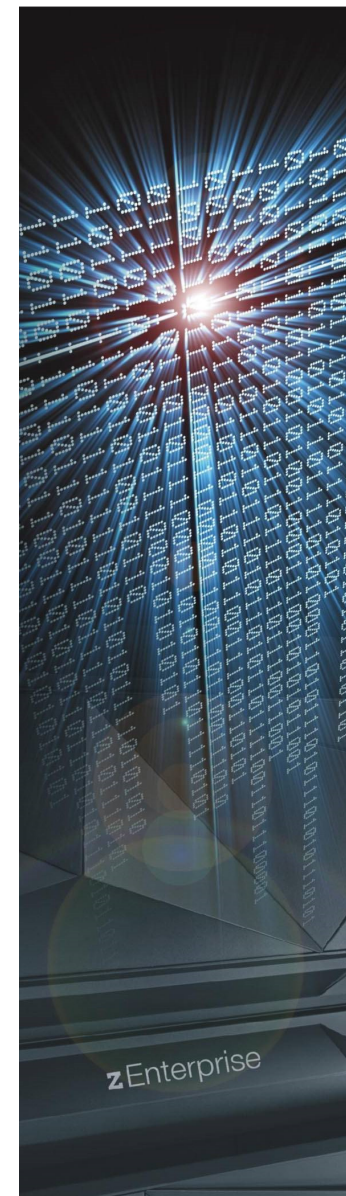
- **CICS TS for z/VSE V2.1 – November 2015**
 - Comes with z/VSE V6.1
 - Support for Channels and Containers
 - CICS Explorer update capability

- **CICS TS for z/VSE V2.2 – 4Q2017**
 - Comes with z/VSE 6.2



Agenda

- **CICS Overview**
- **CICS TS V2.1 – z/VSE 6.1**
 - Channels and Containers
- **CICS TS V2.2 – z/VSE 6.2**
 - HTTP 1.1 Support
 - CICS Web Support with OpenSSL
- **CICS Connectivity options**
 - CICS Explorer
 - CICS Web Support
 - CICS Transaction Gateway
 - z/VSE SOAP Engine
 - z/VSE REST Engine



CICS TS for z/VSE 2.1



- **A new CICS TS version for z/VSE**
 - The first major CICS TS update since 1999

- **Only available for z/VSE 6.1 and later, replaces CICS TS for VSE/ESA 1.1.1**
 - CICS TS for VSE/ESA 1.1.1 still delivered with z/VSE Version 5

- **New CICS TS for z/VSE V2.1 includes**
 - CICS Explorer update capability
 - Channel & Container support
 - The following CICS requirements are fulfilled
 - More current cypher suites (AES128/256) to CICS Web Support
 - Support for EXEC CICS INQUIRE SYSTEM OSLEVEL
 - Millisecond support in EXEC CICS ASKTIME
 - Millisecond option to EXEC CICS FORMATTIME

- **CICS Distributed Data Management (CICS/DDM) is not supported**

Channels and Containers

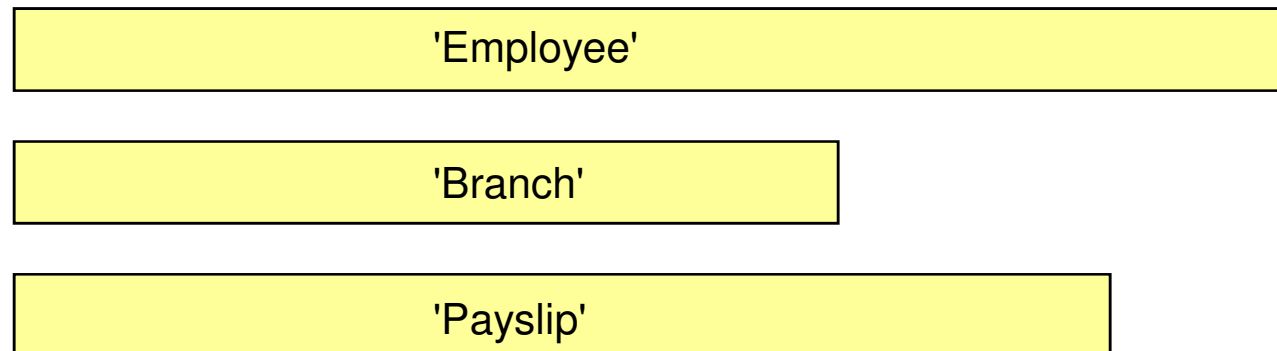


- **Channels and containers** lift the 32K Commarea limitation
 - Applicable for both LINK and XCTL, Distributed Program Link (DPL)
 - Affects the exchange of data between CICS tasks
 - Local and transaction routing
 - START with data

- **z/VSE ported the channel and container APIs based on CICS TS for z/OS 3.1**
 - Language support is provided for C, COBOL, HLASM, and PL/I

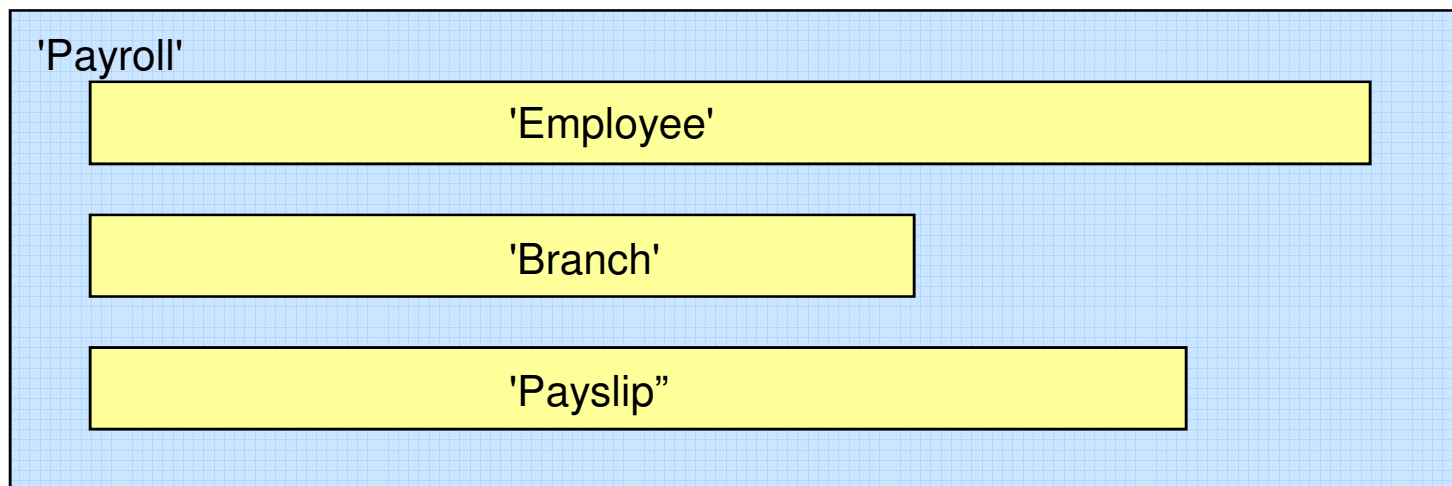
- **Channels and Containers limitations**
 - In 31 bit virtual storage only
 - No support for
 - External CICS Interface (EXCI), External Call Interface (ECI)
 - EXEC CICS WEB ... commands to receive/send data directly into/from containers
 - Business Transaction Services (BTS)

Containers



- **To solve the 32K Commarea problem a new construct is provided**
- **Named block of data designed for passing information between programs**
 - Like named COMMAREAs
- **CONTAINER API**
 - Created using (EXEC CICS) PUT CONTAINER, defines the size of the container
 - Read using (EXEC CICS) GET CONTAINER
 - Delete using (EXEC CICS) DELETE CONTAINER, to free storage, if no longer required
- **No CICS enforced size limitation**
 - Containers are stored within the CICS EDSA (31 bit partition virtual storage)

Channels



- **A group of Containers**
 - No limit on the number of Containers in a Channel
- **A Channel is a sort of program interface**
 - Passed on LINK, XCTL, pseudo-conversational RETURN, and START commands
- **Non-persistent**
 - Non-recoverable resource similar to commareas

A Simple Example

PROGA

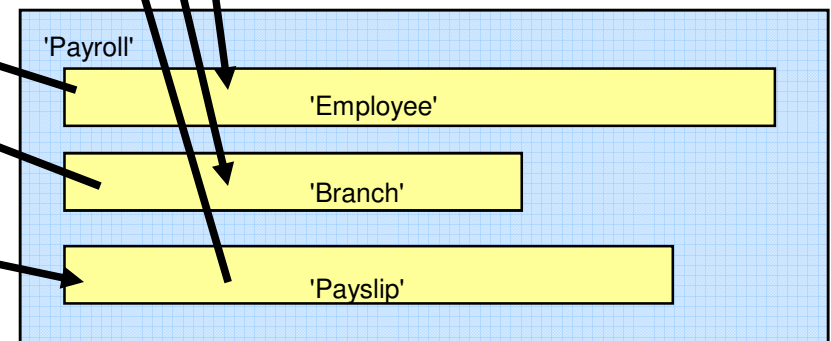
```
PUT CONTAINER('Employee') CHANNEL('Payroll') FROM(emp-data)
PUT CONTAINER('Branch') CHANNEL('Payroll') FROM(branch-data)

LINK PROGRAM('PROGB') CHANNEL('Payroll')

GET CONTAINER('Payslip') CHANNEL('Payroll') INTO(pay-data)
```

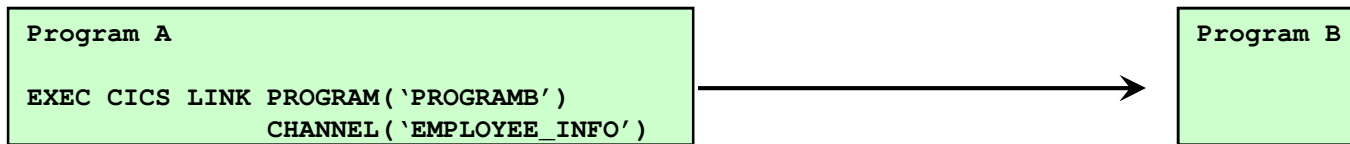
PROGB

```
GET CONTAINER('Employee') INTO(emp-data)
GET CONTAINER('Branch') INTO(branch-data)
...
PUT CONTAINER('Payslip') FROM(pay-data)
```



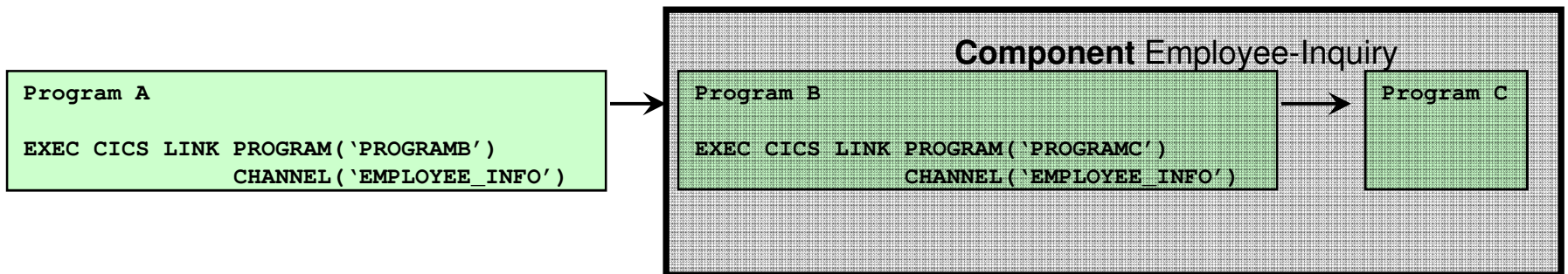
Basic Scenarios for using Channels

- **One Channel / One Program**



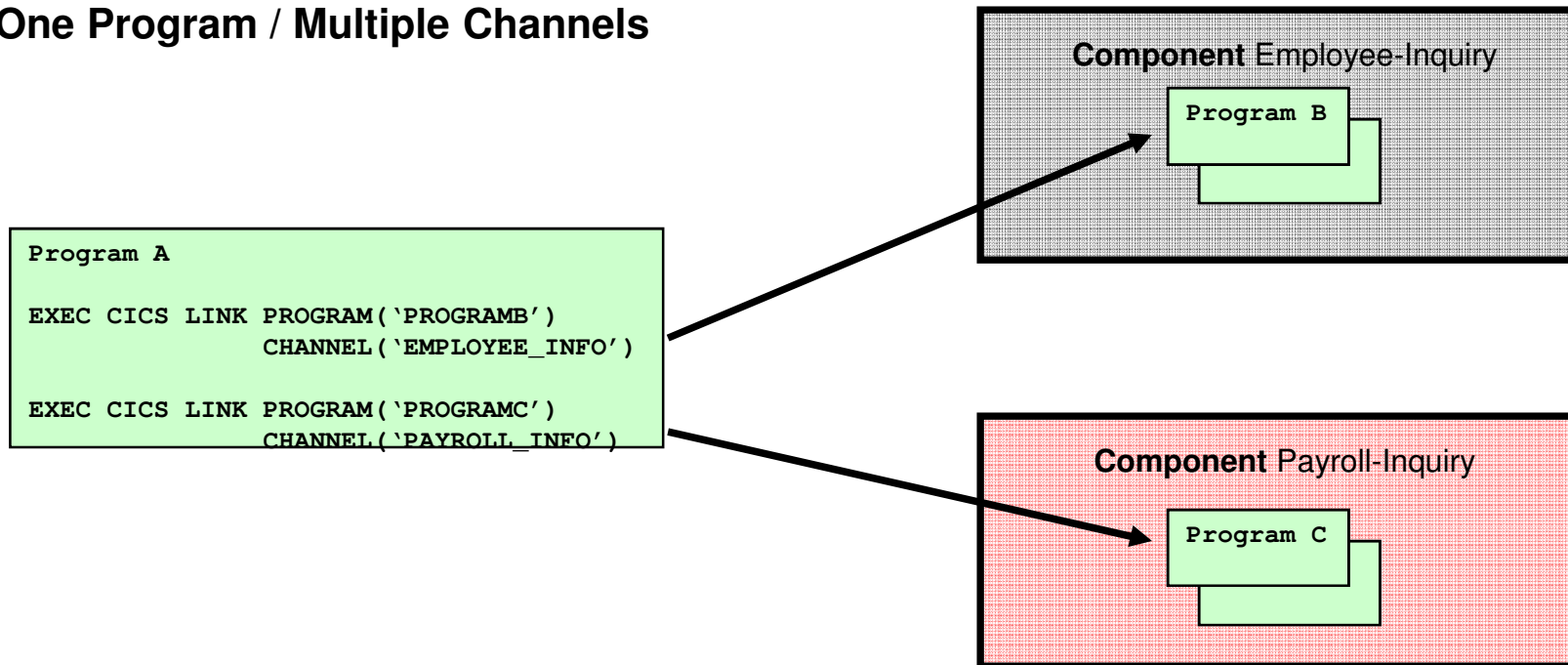
- **One Channel / Multiple Programs**

- The Channel is the interface to a Component



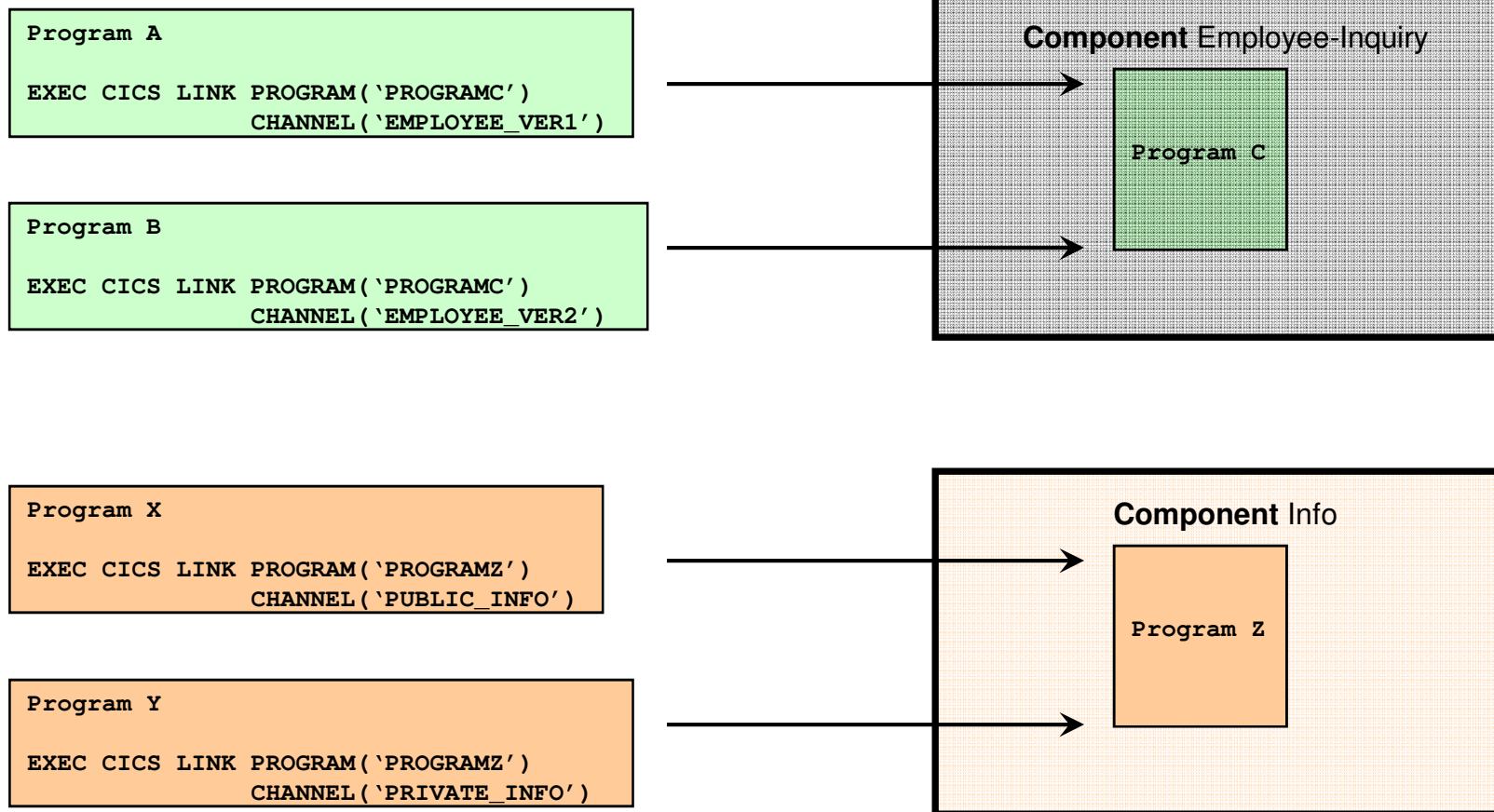
Scenario - Multiple Components

▪ One Program / Multiple Channels



Scenario - Loose Binding

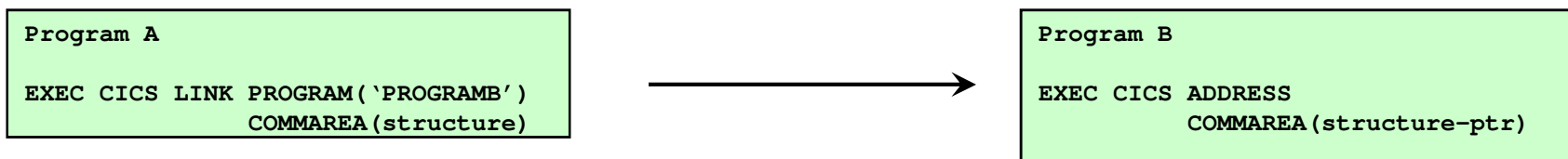
▪ Multiple Programs / Multiple Channels



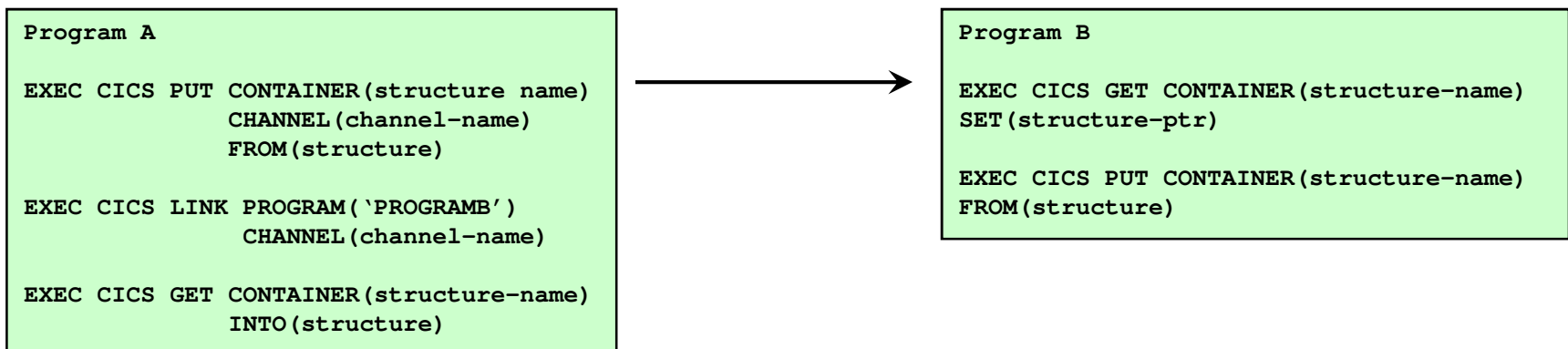
Note that CICS does not define any security mechanism to enforce who can use a Channel name.

Migration of Programs Using LINK

- Existing application with COMMAREA



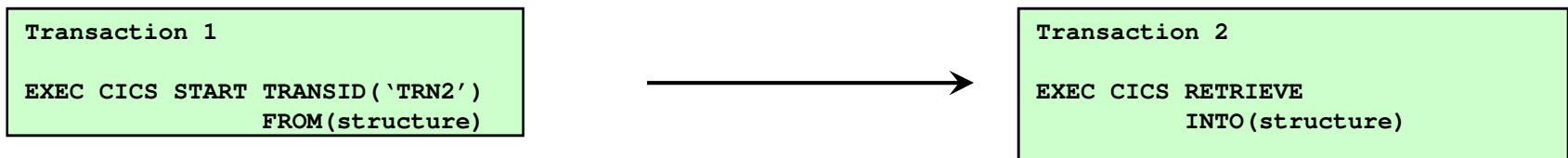
- Changed application using Channels



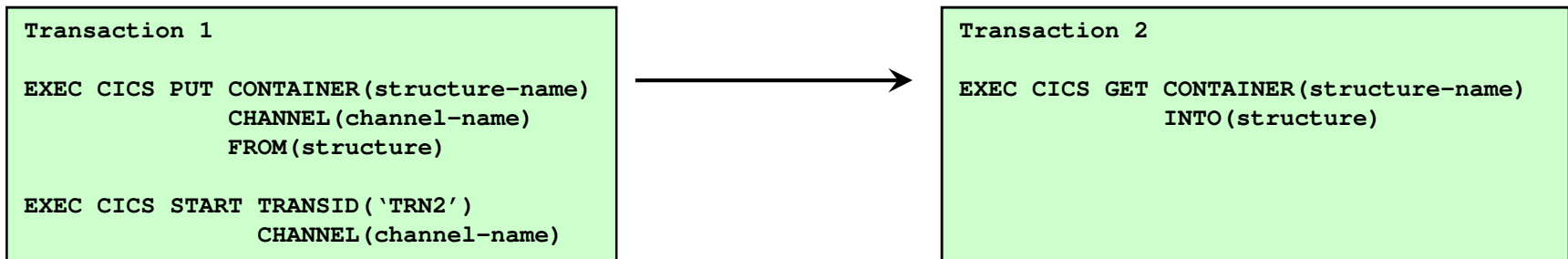
Note that, if Program B changes the Container data, it must PUT the Container back before returning, or the changes will not be visible to the caller.

Migration of Programs Using START

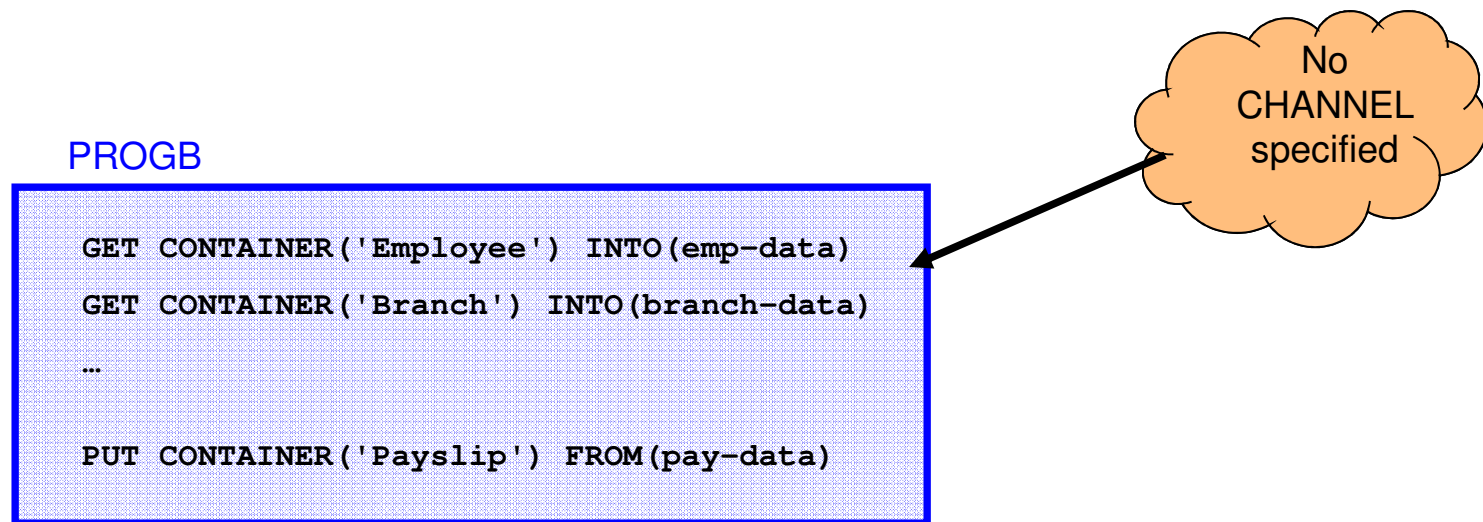
- Existing application with START data



- Changed application using Channels

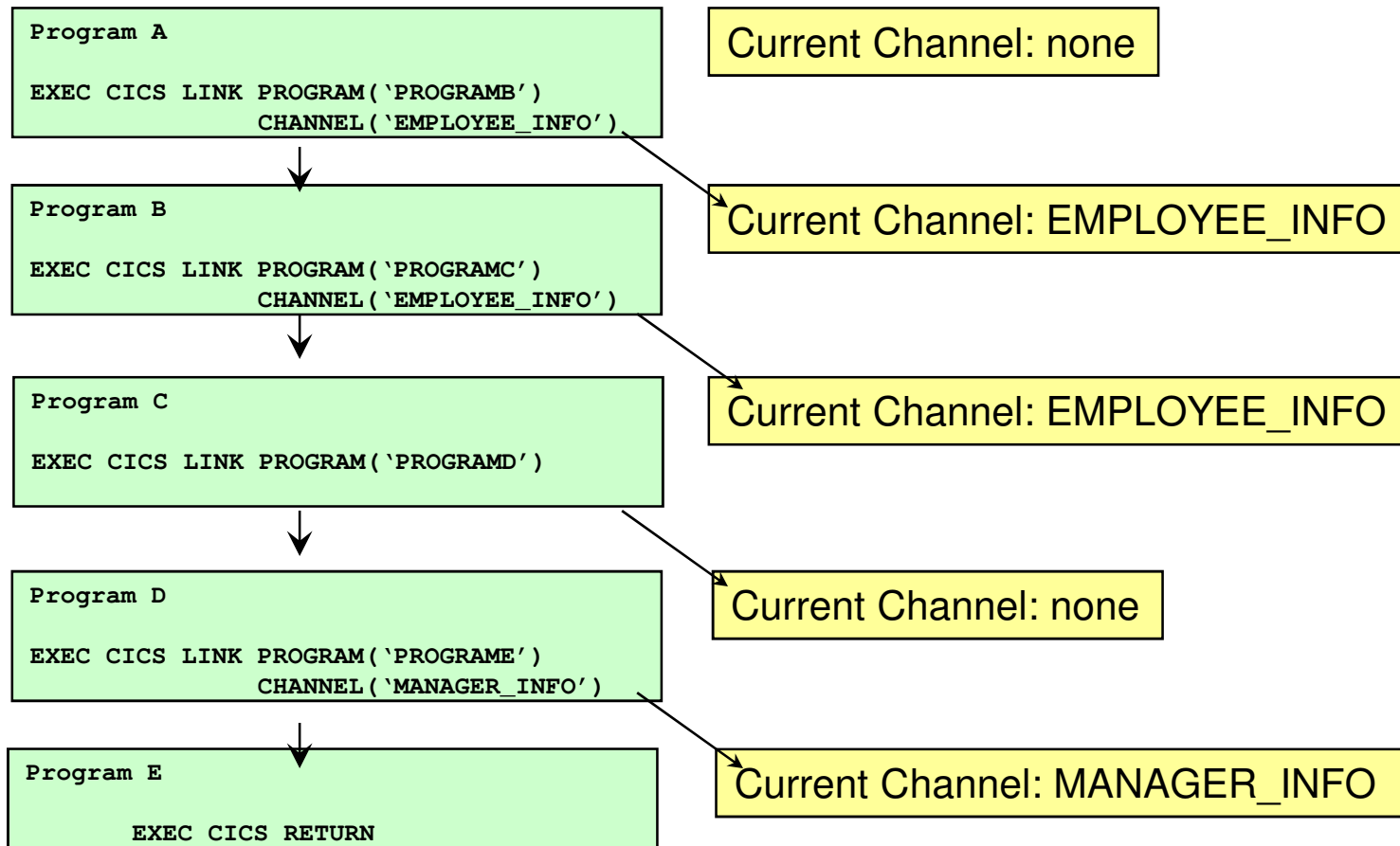


The Current Channel



- **The Channel, if any, passed to the program by:**
 - LINK, XCTL, START or pseudo-conversation RETURN
- **Does not change during the life of the program**
 - The program may create other Channels
- **Default for EXEC CICS commands that do not explicitly specify a Channel name**

Current Channel



The Scope of a Channel

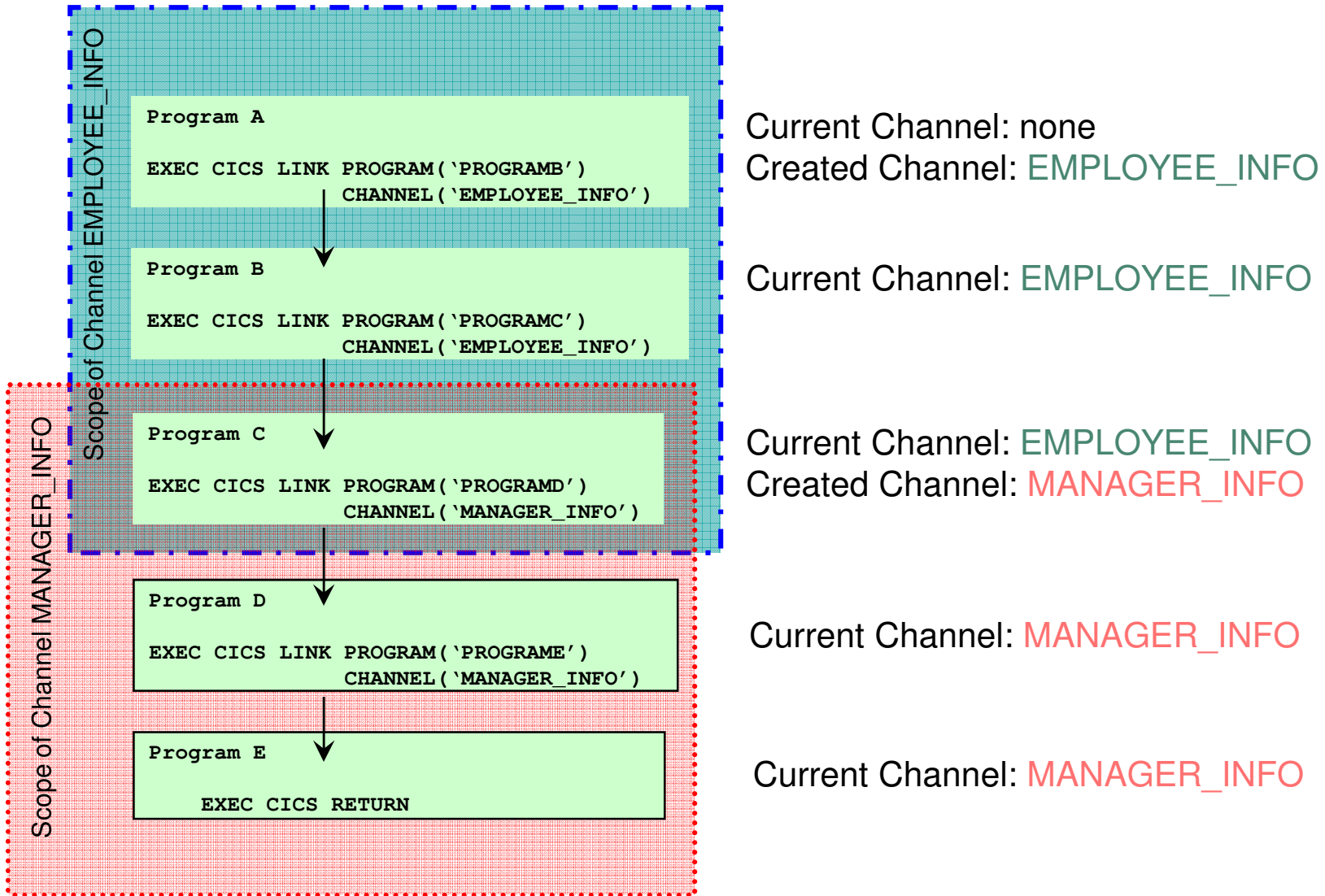


- **A program can access**
 - Its Current Channel
 - Any other Channels it creates

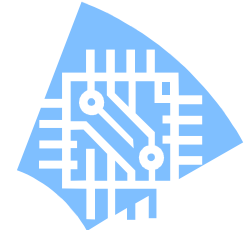
- **When no program in the link stack can access a Channel it is deleted**
 - Can occur on RETURN or XCTL

- **Channels cannot be accessed by other tasks**

Channel Scope



Channel & Container related API Commands



- **Container commands**

- PUT CONTAINER
- GET CONTAINER
- MOVE CONTAINER
- DELETE CONTAINER

- **Program transfer commands**

- LINK PROGRAM
- XCTL PROGRAM

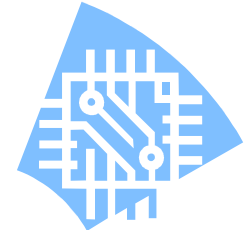
- **Inquiry commands**

- ASSIGN CHANNEL
- STARTBROWSE CONTAINER
- GETNEXT CONTAINER
- ENDBROWSE CONTAINER

- **Transaction transfer commands**

- RETURN TRANSID
- START TRANSID

Container Commands



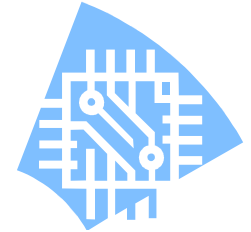
- **EXEC CICS PUT CONTAINER**
 - Copies data into a container within the channel
 - Overwrites existing data if container already exists
 - Creates channel if it does not already exist

- **EXEC CICS GET CONTAINER**
 - Retrieve the container data into user storage

- **EXEC CICS MOVE CONTAINER**
 - Moves a container from one channel to another
 - Can be used to rename a container

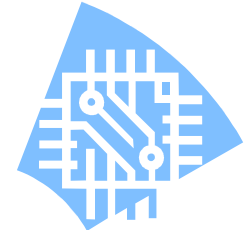
- **EXEC CICS DELETE CONTAINER**
 - Deletes a container from the channel
 - Does not delete the channel, even if no containers left

EXEC CICS PUT CONTAINER



- **CONTAINER (data-value)**
 - The name (1-16 characters) of the container
- **CHANNEL (data-value)**
 - The name (1-16 characters) of the channel that owns the container.
 - Defaults to current channel.
- **FROM (data-area)**
 - Specifies the data area from where the data to be saved is read.
- **FLENGTH (data-value)**
 - Specifies the length of the data area to be saved.
 - Can be 0 to very large.
 - This parameter is added by the translator if not specified (except C).
- **FROMCCSID (data-value)**
 - Specifies the current Coded Character Set of the character data to be put into the container. Defaults to the CCSID of the local CICS region.
- **DATATYPE (CVDA)**
 - BIT - The data in the container cannot be converted.
 - CHAR - Character data which can be converted.

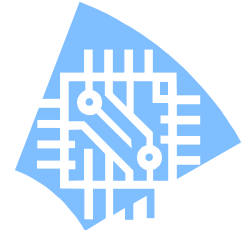
EXEC CICS GET CONTAINER



- **CONTAINER (data-value)**
 - The name (1-16 characters) of the container
- **CHANNEL (data-value)**
 - The name (1-16 characters) of the channel that owns the container.
 - Defaults to current channel.

- **INTO (data-area)**
 - Specifies the data area into which the retrieved data is to be placed.
- **SET (ptr-ref)**
 - Specifies a data area in which the address of the retrieved data is returned
- **FLENGTH (data-area)**
 - Specifies the length of the data area to be read.
 - Returns the length actually read.
- **NODATA**
 - Specifies only the length of the data in the container is to be returned. The length returned will take into account the INTOCCSID.
- **INTOCCSID (data-value)**
 - Specifies the current Coded Character Set into which the character data is to be converted. Defaults to the CCSID of the local CICS region.

Scenario – Simple Data Conversion

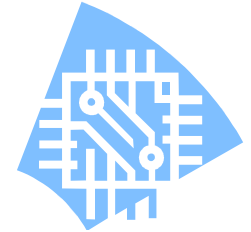


- PUT and GET can be used for data conversion
- Uses CICS conversion tables
- Simple example of converting data to ASCII

```
EXEC CICS PUT CONTAINER('temp') CHANNEL('dummy')  
          FROM(ebcdic-data)  
          CHAR
```

```
EXEC CICS GET CONTAINER('temp') CHANNEL('dummy')  
          SET(ascii-ptr) FLENGTH(ascii-len)  
          INTOCCSID(1252)
```

EXEC CICS MOVE CONTAINER



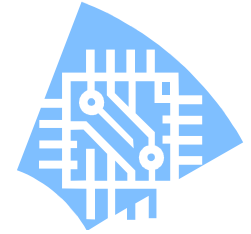
- **CONTAINER (data-value)**
 - The name (1-16 characters) of the container

- **CHANNEL (data-value)**
 - The name (1-16 characters) of the channel that owns the container.
 - Defaults to current channel.

- **TOCHANNEL (data-value)**
 - Specifies the name of the channel that will own the target container

- **AS (data-value)**
 - Specifies the name of the target container

EXEC CICS DELETE CONTAINER

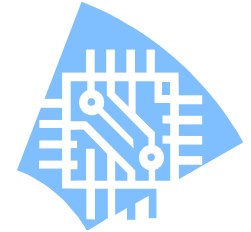


- **CONTAINER (data-value)**
 - The name (1-16 characters) of the container

- **CHANNEL (data-value)**
 - The name (1-16 characters) of the channel that owns the container.
 - Defaults to current channel.

- **Note:** There is no command to delete a channel.
These are deleted automatically when they go out of scope.

Program Transfer Commands

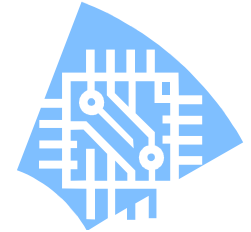


- **LINK PROGRAM [CHANNEL|COMMAREA]**
 - Links to another program, on a local or remote system, passing the channel and container data
 - Creates the channel if it doesn't already exist

- **XCTL PROGRAM [CHANNEL|COMMAREA]**
 - Transfers control to the program on a local system passing the channel and container data
 - Creates the channel if it doesn't already exist

- **Note:** You can **either** pass a channel **or** a commarea, but not both at the same time

Transaction Transfer Commands

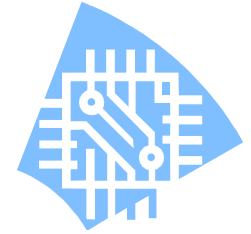


- **RETURN TRANSID [CHANNEL|COMMAREA]**
 - Returns control to CICS, passing the channel and container data to the next transaction id
 - Creates the channel if it doesn't already exist

- **START TRANSID [CHANNEL|FROM]**
 - Starts a task, on a local or remote system
 - Copies the named channel and container data and passing it to the started task
 - Creates the channel if it doesn't already exist

- **Note:** You can **either** pass a channel **or** a commarea, but not both at the same time

Inquiry commands



- **ASSIGN CHANNEL(data-area)**
 - Returns the name of the current channel
 - Spaces returned if no current channel

- **Container browse commands**
 - STARTBROWSE CONTAINER [CHANNEL(data-area)]
 - GETNEXT CONTAINER (data-area)
 - Container names returned in no particular order
 - ENDBROWSE CONTAINER

Interface Changes

- **Global User Exits (GLUEs)**
 - Can create and pass channels and containers to programs they call
- **Task Related User Exits (TRUEs)**
 - Can create and pass channels and containers to programs they call
- **User Replaceable Modules (URM)**
 - Can create and pass channels and containers to programs they call
 - URMs may not access contents of application channels
- **Monitoring**
 - New monitoring group DFHCHNL
 - Changed monitoring group DFHPROG, DFHTASK
- **Statistics**
 - New fields in ISC/IRC system entry, Connections and Modenames



Channels & Containers - Summary

- **Channels and Containers allow more than 32k of data to be passed between CICS applications**
 - Program to program (LINK and XCTL)
 - Transaction to transaction (START and RETURN)
- **Allow better structuring of application data**
 - Different containers to prevent overloaded copybooks
- **Minimal application changes required for exploitation**
- **Allow for data conversion between different code pages**
- **Channels & Containers are available in CICS TS for z/VSE V2.1 only**
 - Delivered as part of z/VSE V6.1
- IBM Redbook “CICS Transaction Server V3R1 Channels and Containers Revealed” provides more information: <http://www.redbooks.ibm.com/abstracts/sg247227.html?Open>

Migration to CICS TS for z/VSE 2.1

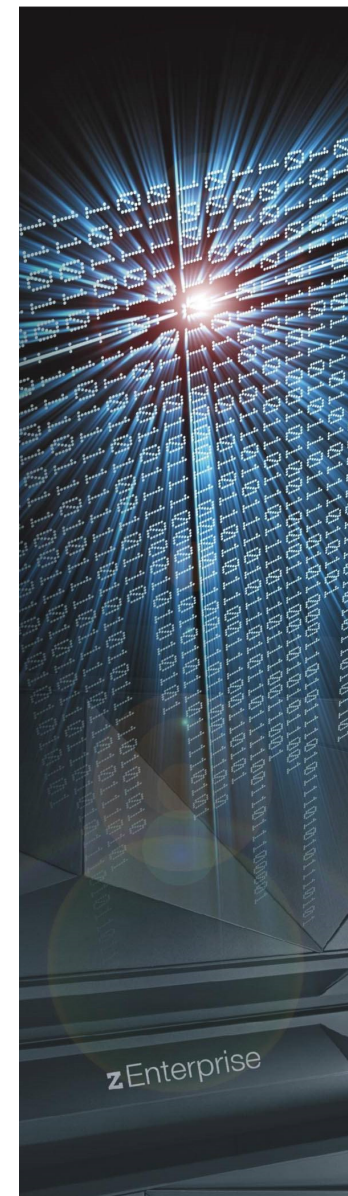


- **CICS TS for z/VSE 2.1 delivered with z/VSE 6.1**
 - Can not run on z/VSE V5 or earlier
 - CICS TS for VSE/ESA 1.1.1 is not available on z/VSE 6.1

- **Migration considerations**
 - CICS tables (SIT, MCT, DFHCNV, and others) **need to be reassembled and re-linked**
 - If you use your own CSD dataset, upgrade the CSD dataset with the DFHCSDUP utility
 - If your program uses the EXEC CICS API interfaces, program run unchanged (no recompile / relink required)
 - If programs use internal CICS control blocks, recompile is recommended
 - Global User Exits: it is recommended to recompile programs, if you use internal CICS control blocks
 - DFHCNV and DFHUCNV user-replacable modules: DFHCNV need to be recompiled

Agenda

- **CICS Overview**
- **CICS TS V2.1 – z/VSE 6.1**
 - Channels and Containers
- **CICS TS V2.2 – z/VSE 6.2**
 - HTTP 1.1 Support
 - CICS Web Support with OpenSSL
- **CICS Connectivity options**
 - CICS Explorer
 - CICS Web Support
 - CICS Transaction Gateway
 - z/VSE SOAP Engine
 - z/VSE REST Engine



CICS TS for z/VSE 2.2



- **Only available for z/VSE 6.2 and later, replaces CICS TS for z/VSE 2.1**
 - CICS TS for VSE/ESA 1.1.1 still delivered with z/VSE Version 5
 - CICS TS for z/VSE 2.1 still delivered with z/VSE 6.1

- **New CICS TS for z/VSE V2.2 includes**
 - Enhancements to the CICS Explorer to more easily manage CICS resources:
 - Define new CICS resources and modify or delete existing resources
 - Monitor, control, and update dynamic storage areas and global temporary storage queue statistics
 - Support "definitions" views for selected CICS resources
 - HTTP 1.1 Support for CICS Web Support:
 - Persistent connections, pipelining, and chunking
 - Enhancements to the CICS API to provide:
 - Support for UTF-8 and UTF-16 with the channels and containers API
 - Support for the APPEND parameter for PUT CONTAINER
 - Support for the BYTEOFFSET parameter for GET CONTAINER
 - Support for Internet-type date and time stamp formats
 - Support for Language Environment (LE) MAIN for Assembler applications.
 - Support for OpenSSL with CICS Web Support

HTTP 1.1 Support



- **CICS Web Support has been upgraded to comply with HTTP 1.1**
 - Provides support for the latest web browsers and applications
 - Ported from CICS TS for z/OS 3.1, CICS acting as a server
 - TCPIP SERVICE PROTOCOL(HTTP|ECI|USER)

- **New function has been added:**
 - **Persistent connections**
 - Allows to keep a connection open so that additional HTTP requests can flow over the same connection
 - Avoids connection establishment overhead for frequent requests
 - **Pipelining**
 - Allows to flow multiple HTTP requests over a single (persistent) connection
 - Subsequent request can be transmitted before the response of the first one has been received
 - Response must be returned in the same sequence as request was received
 - **Chunking**
 - Allows to send data in several smaller chunks, each with its own size and data
 - No longer need to know the complete size of the data before sending the data
 - **Support for additional HTTP methods:**
 - OPTIONS: To get capabilities of the server without requesting a resource
 - TRACE: Client can see what the other end received

Misc. CICS enhancements



- **Relative addressing instructions in Assembler programs (without base register)**
 - New operands added to DFHEIENT and DFHEIRET macros
 - Beneficial for translated programs that are greater than 4095 bytes

- **Common date and time stamp formats used on the internet**
 - Define correct date and time stamp in HTTP header
 - New CONVERTTIME command and new option for FORMATTIME

- **Language Environment (LE) MAIN for Assembler applications**
 - New translator option LEASM to enable LE functions and setup LE environment
 - Assembler programs translated with LEASM can be used as task-related user exits (TRUEs) or global user exits (GLUEs)

- **New SIT parameter: MAXSOCKETS**
 - Specifies the maximum number of TCP/IP sockets, that can be handled by CICS

UTF-8 and UTF-16 support for Channels and Container



- **Most textual data in the internet is encoded in UTF-8 nowadays**
 - XML, JSON, HTML, etc.
- **PUT and GET can be used for data conversion**
- **Uses CICS conversion tables or LE provided conversion services (ICONV)**
 - CICS conversion tables are used for simple codepages
 - ICONV is used for UTF8 and UTF-16
- **Simple example of converting data to UTF-8:**

```
EXEC CICS PUT CONTAINER('temp') CHANNEL('dummy')  
        FROM(ebcdic-data)  
        CHAR
```

```
EXEC CICS GET CONTAINER('temp') CHANNEL('dummy')  
        SET(utf8-ptr) FLENGTH(utf8-len)  
        INTOCCSID(1208)      (CCSID 1208 = UTF-8)
```

OpenSSL support for CICS Web Support



- **CICS TS for VSE/ESA 1.1.1 and CICS TS for z/VSE 2.1:**
 - Only supports CSI 's SSL/TLS implementation
 - OpenSSL can not be (natively) used
 - Circumvention: use IPv6/VSE's SSL Proxy or ATTLS as pass-through
 - But: CICS Web Support works with any TCP/IP stack (socket calls)
 - CSI, BSI or LFP

- **CICS TS for z/VSE 2.2:**
 - Allows to use the OpenSSL or the CSI SSL/TLS implementation
 - Default remains CSI's implementation
 - SSL implementation can be chosen via // SETPARAM statement in JCL
 - SSL implementation is now independent of TCP/IP stack
 - OpenSSL requires a slightly different key and certificate setup
 - PEM files instead of .PRVK, .ROOT, .CERT members

Migration to CICS TS for z/VSE 2.2



▪ CICS TS for z/VSE 2.2 delivered with z/VSE 6.2

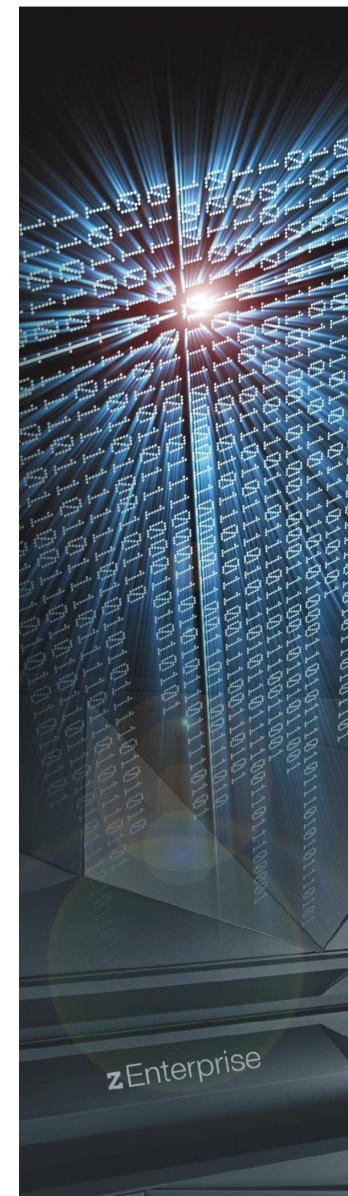
- Can not run on z/VSE V6.1, V5 or earlier
- CICS TS for VSE/ESA 1.1.1 and CICS TS for z/VSE 2.1 are not available on z/VSE 6.2

▪ Migration considerations

- CICS tables (SIT, MCT, DFHCNV, and others) **need to be reassembled and re-linked**
- If you use your own CSD dataset, upgrade the CSD dataset with the DFHCSDUP utility
 - **Especially TCPIP SERVICE definitions must be migrated or defined freshly**
 - **If you share the CSD file between different CICS releases, ensure that TCPIP SERVICE definitions are not shared (i.e. put in different groups)**
- If your program uses the EXEC CICS API interfaces, program run unchanged (no recompile / relink required)
- If programs use internal CICS control blocks, recompile is recommended
- Global User Exits: it is recommended to recompile programs, if you use internal CICS control blocks
- DFHCNV and DFHUCNV user-replacable modules: DFHCNV need to be recompiled

Agenda

- **CICS Overview**
- **CICS TS V2.1 – z/VSE 6.1**
 - Channels and Containers
- **CICS TS V2.2 – z/VSE 6.2**
 - HTTP 1.1 Support
 - CICS Web Support with OpenSSL
- **CICS Connectivity options**
 - CICS Explorer
 - CICS Web Support
 - CICS Transaction Gateway
 - z/VSE SOAP Engine
 - z/VSE REST Engine



CICS Explorer

- **CICS Explorer “display only” in z/VSE Version 5**
 - System management framework for CICS TS
 - Consists of CICS Explorer client and a CICS TS server extension
 - CICS Explorer client
 - Read-only capabilities (like CEMT INQUIRE)
 - Eclipse-based user interface on workstation
 - Connects to CICS TS via TCP/IP - Communication via HTTP requests
 - One CICS Explorer client for z/VSE and z/OS
 - CICS Explorer server extension
 - Delivered as PTF for CICS TS for VSE/ESA 1.1.1

- **Integrated into CICS TS for z/VSE 2.1 (z/VSE 6.1)**
 - Provides update capability to CICS resources (like CEMT SET)
 - Update resources as you would do with transactions on your CICS terminal
 - Enable / disable CICS resources, change selected CICS definitions, ...

- **Integrated into CICS TS for z/VSE 2.2 (z/VSE 6.2)**
 - Define new CICS resources and modify or delete existing resources (like CEDA)
 - Monitor, control, and update dynamic storage areas and global temporary storage queue statistics.



CICS Explorer on the web

<http://www.ibm.com/vse>

The screenshot shows the IBM z/VSE website interface. At the top is a dark navigation bar with the IBM logo and links for 'Industries & solutions', 'Services', 'Products', 'Support & downloads', and 'My IBM'. A search bar is on the right. Below this is a breadcrumb trail: 'IT infrastructure > z Systems (Mainframes) > Operating systems > z/VSE >'. The main heading is 'Products and components'. There are two tabs: 'z/VSE Components' (selected) and 'z/VSE Products'. Under 'z/VSE Components', there are links for 'z/VSE V6.1', 'z/VSE V5.2', and 'z/VSE V5.1'. A list of links includes 'General', 'z/VSE System Package', 'CICS Transaction Server' (highlighted with a red arrow), 'z/VSE Connectors', 'TCP/IP', and 'z/VSE VTAPE'. A section titled 'z/VSE 6.1' contains a paragraph: 'z/VSE is designed to protect and leverage customer investments in z/VSE information assets. It brings the value of innovative IBM z Systems and IBM Storage technology to z/VSE clients.' Below this is a list of links: 'CICS Transaction Server for z/VSE 2.1 5655-VSE', 'CICS Transaction Server for VSE/ESA 1.1 5648-054', 'CICS Explorer' (with a red arrow), and 'More Information about CICS'. On the right, there is a 'Contact IBM' section with an image of hands typing, and links for 'Email z/VSE', 'Find a Business Partner', and 'Call IBM: 1-866-261-3023 Priority code: z Systems'. At the bottom right is a 'Browse z/VSE' section with a grid of links: 'About z/VSE', 'Documentation', 'How to buy', 'Service & support', 'News & announcements', 'Downloads', 'Events', 'Education', 'Solutions', 'Partners', 'Products & components', 'FAQ', and 'Contact z/VSE'.

CICS Explorer on the web ...



CICS Explorer

The new face of CICS Transaction Server.

The CICS Explorer is the new systems management framework for CICS TS. It provides read-only capabilities to display CICS resources. The CICS Explorer consists of a CICS Explorer client and a CICS TS server extension. The CICS Explorer client can be downloaded from the [CICS Explorer web page](#), and the CICS TS server extension is delivered as CICS TS PTF. When used with CICS TS for VSE/ESA, it requires z/VSE V5.1, or later.

The CICS Explorer user guide provides some more information on the CICS Explorer installation and use.

 [IBM CICS Explorer User Guide V1.2b \(PDF, 500KB\)](#)

[→ IBM CICS Explorer download](#) 



[↑ Back to top](#)

CICS Explorer on the web

Simplify CICS management with an integrated, single interface

IBM® CICS Explorer® is a system management tool that offers a simple, integrated and intuitive way of managing one or more IBM CICS® systems. It is based on the Eclipse platform and enables you to view and manage IBM CICS Transaction Server regions and integrates CICS tools and the visibility and control of the CICS run time and its resources.

Not in United States?

Select another country.  

CICS Explorer resources

-  [Ecosystem: CICS Explorer \(65KB\)](#)
-  [CICS Explorer Forum](#)
-  [CICS Developer Center](#)

CICS Explorer - CICS TS installation



▪ System requirements

- CICS Explorer connects to z/VSE Version 5 or later only
- Additional extended Dynamic Storage Area (EDSA) required
 - Size depends on active CICS resources
 - Good start is 50 MB (with additional PTF)
 - May impact partition allocation
- TCP/IP for VSE/ESA 1.5F or IPv6/VSE 1.1 or Linux Fast Path (IPv4 only)

▪ Install PTFs for CICS Explorer support (included in z/VSE 5.1.1 or higher)

- CICS Management Client Interface (CMCI)
- CICSplex System Management (CPSM)
- Code will be installed into PRD1.BASE
- No additional z/VSE Librarian definitions (LIBDEFs) required

CICS Explorer - CICS TS installation ...

- **CICS setup skeletons in ICCF library 59**

- CICS System Definitions (CSD)
- Transaction security setup
- DCT (Destination Control Table)
- Define / initialize dataset EYUPARM (for debugging)

- **Add DLBL / EXTENT / ASSGN statements for EYUPARM dataset to CICS start-up job**
- **Changing CICS SIT (SEC=YES, TCPIP=YES)**
- **Define TCPIP SERVICE**
- **Adjust EDSALIM, if additional DSA space required**
- **Define a conversion table – DFHCNV**
- **Install new groups using CEDA**

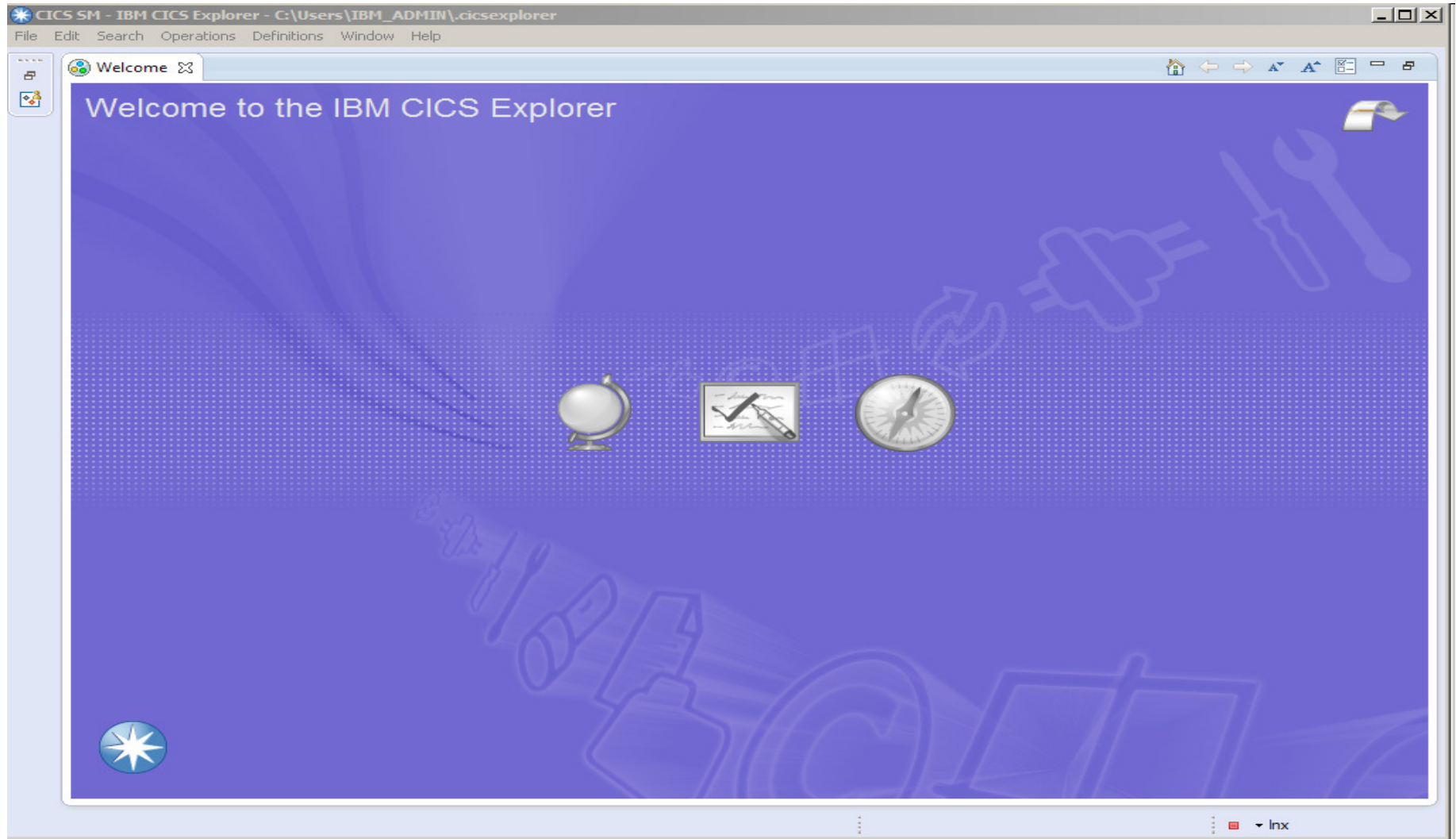


CICS Explorer - Start CORM transaction on server

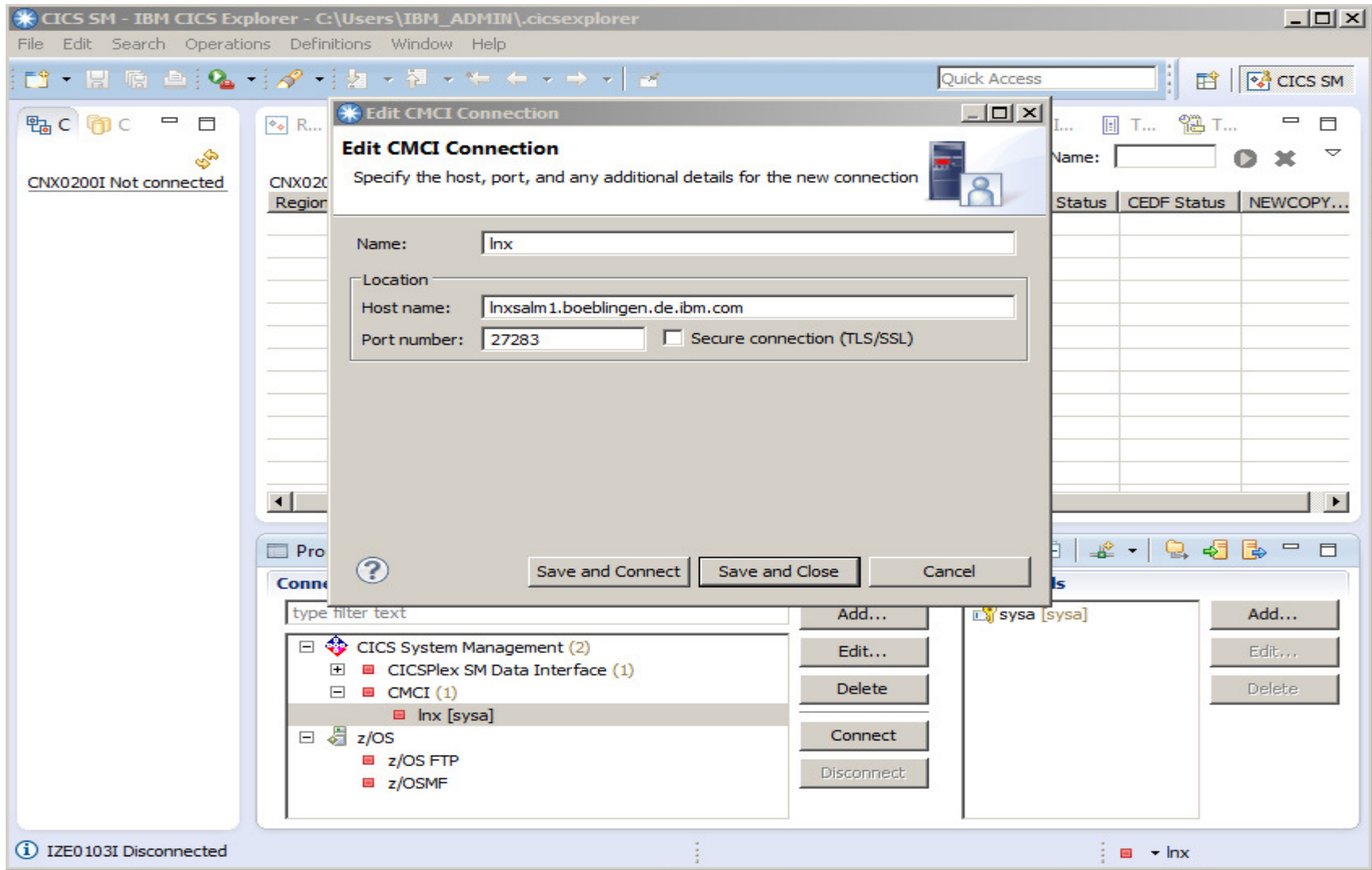
```

BOEVMSPB
File Edit View Communication Actions Window Help
SYSTEM: z/VSE z/VSE 5.1 TURBO (01) USER: SYS
VM USER ID:LNXSALM1 TIME: 15:35:14
F8 0488 DFHS00101I PRODCICS Sockets domain initialization has ended.
F8 0488 DFHWB1007 PRODCICS Initializing CICS Web environment.
F8 0487 BSD100I IPNRBSDC 01.05 F 09/12/11 18.37 032CE000 01E7
F8 0488 DFHWB1008 PRODCICS CICS Web environment initialization is complete.
F8 0488 DFHSI8430I PRODCICS About to link to PLT programs during the third
stage of initialization.
F8 0488 DFHSI8434I PRODCICS Control returned from PLT programs during the
third stage of initialization.
F8 0488 DFHSI1517 PRODCICS Control is being given to CICS.
F8 0488 DFHFC0208I PRODCICS
LSR pool 1 is being built dynamically by CICS because the following
are not defined: 'CI STPF' 'STDIMCC' 'MOVKEVI ENCTU' A delay
is possible. ← corm (transaction executed in CICS)
F8 0488 EYUNX0001I PRODCICS S...
F8 0488 EYUNX0030I PRODCICS SMSS successfully initiated from terminal A000
F8 0488 EYUXL0003I PRODCICS CPSM Version 420 SMSS startup in progress
F8 0488 EYUXL0119I PRODCICS CPSM Kernel loaded from EYU9XL02
F8 0488 EYUXL0005I PRODCICS Major Object created for KNL
F8 0488 EYUXL0005I PRODCICS Major Object created for TRC
F8 0488 EYUXL0005I PRODCICS Major Object created for MSG
F8 0488 EYUXL0005I PRODCICS Major Object created for SRV
F8 0488 EYUXL0005I PRODCICS Major Object created for CHE
F8 0488 EYUXL0005I PRODCICS Major Object created for DAT
F8 0488 EYUXL0005I PRODCICS Major Object created for QUE
F8 0488 EYUXL0005I PRODCICS Major Object created for MAS
==>
1=HLP 2=CPY 3=END 6=CNCL 7=BWD 8=FWD 9=EXPL 10=INP 11=PCUU 12=INFO
FILTER: ALL BWD MODE: REDISPLAY
MA a 28/006
    
```

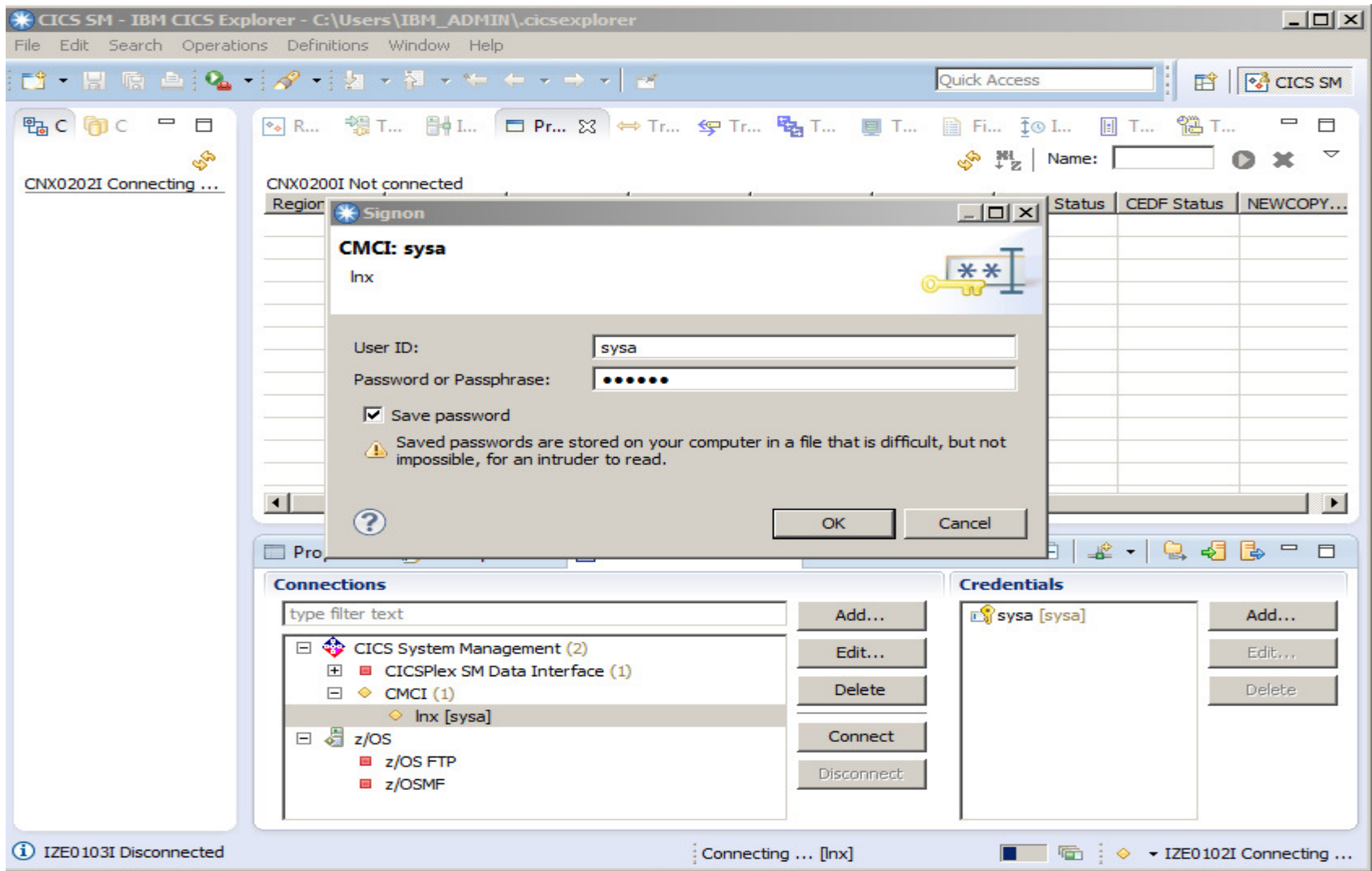

CICS Explorer – welcome page



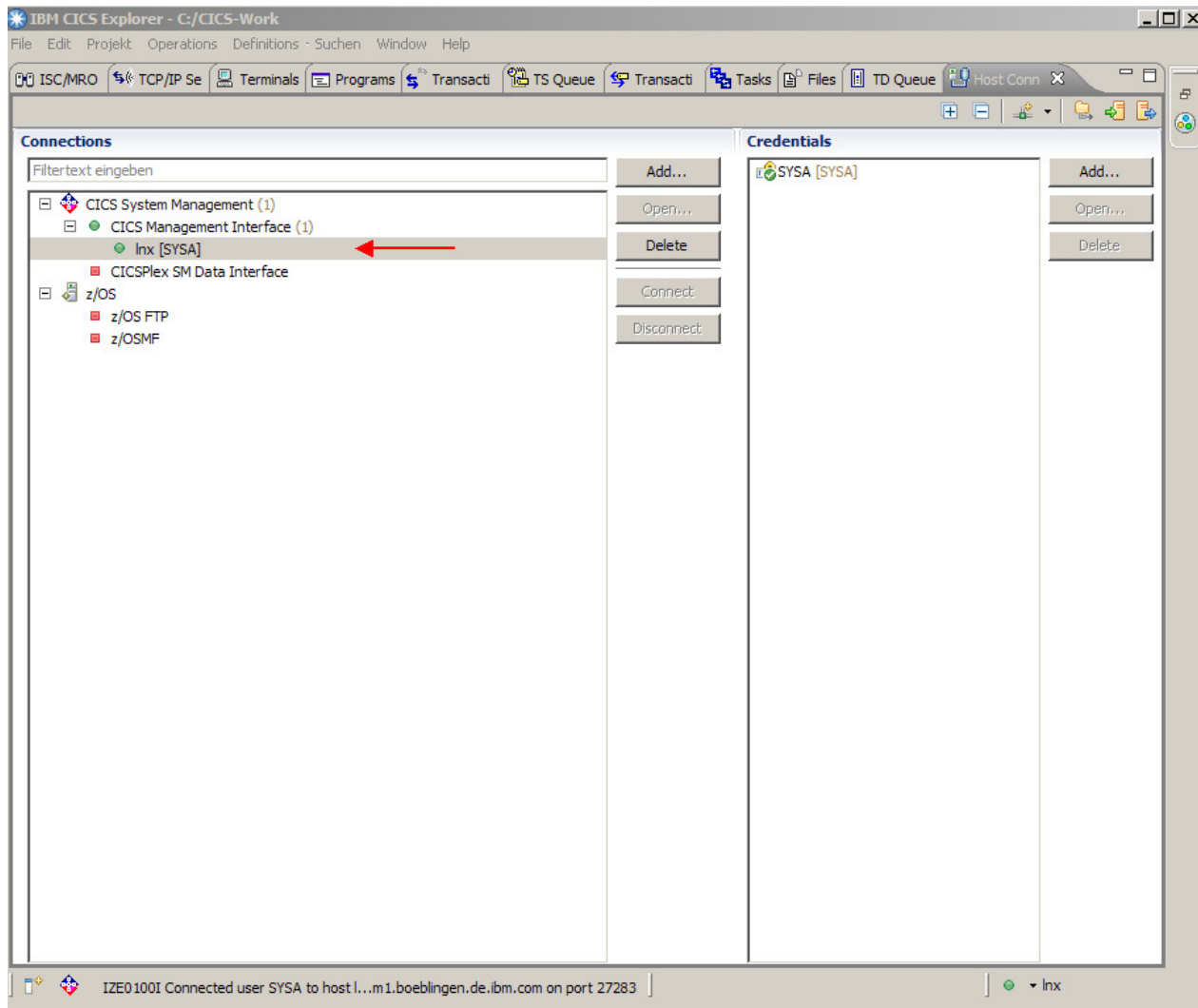
CICS Explorer - configuration



CICS Explorer – sign-on



CICS Explorer – connected



CICS Explorer – connected ...

The screenshot shows the IBM CICS Explorer application window. The title bar reads "IBM CICS Explorer - C:/CICS-Work". The menu bar includes "File", "Edit", "Projekt", "Operations", "Definitions", "Suchen", "Window", and "Help". The main area displays a table of CICS regions with the following data:

Region	Job Name	MVS Syste...	Task Count	CICS Status	CICS TS L...	CICS Rele...	Total CPU	Page In C...	Page Out ...	I/O Count
PRODCICS	CICS2	N/A	4	✓ ACTIVE		V111	0000:00:0...	N/A	N/A	10144

Below the table, the status bar indicates: "IZE0100I Connected user SYSA to host l...m1.boeblingen.de.ibm.com on port 27283" and "Inx".

CICS Explorer – connected ...

IBM CICS Explorer - C:/CICS-Work

File Edit Projekt Operations Definitions Suchen Window Help

ISC/MRO Con TCP/IP Servic Terminals Programs Transactions TS Queues Transaction Cl Tasks Files TD Queues

CNX0211I Context: PRODCICS. Resource: TERMNL. 62 records collected at 28.09.2012 18:02:25

Region	Name	Network Name	Acquire Status	Service Status	ATI Status	TTI Status	Session Status	User ID	Transaction ID
PRODCICS	-AAA	TMPLATE1	RELEASED	INSERVICE	ATI	TTI	NOCREATE	CICSUSER	
PRODCICS	-AAB	TMPLATE1	RELEASED	INSERVICE	ATI	TTI	CREATE	CICSUSER	
PRODCICS	-AAC	TMPLATE1	RELEASED	OUTSERVICE	ATI	TTI	CREATE	CICSUSER	
PRODCICS	-AAD	TMPLATE1	RELEASED	OUTSERVICE	ATI	TTI	CREATE	CICSUSER	
PRODCICS	-AAE	TMPLATE1	RELEASED	OUTSERVICE	ATI	TTI	CREATE	CICSUSER	
PRODCICS	-AAF	TMPLATE1	RELEASED	OUTSERVICE	ATI	TTI	CREATE	CICSUSER	
PRODCICS	-AAG	TMPLATE1	RELEASED	OUTSERVICE	ATI	TTI	CREATE	CICSUSER	
PRODCICS	-AAH	TMPLATE1	RELEASED	OUTSERVICE	ATI	TTI	CREATE	CICSUSER	
PRODCICS	-AAI	TMPLATE1	RELEASED	OUTSERVICE	ATI	TTI	CREATE	CICSUSER	
PRODCICS	-AAJ	TMPLATE1	RELEASED	OUTSERVICE	ATI	TTI	CREATE	CICSUSER	
PRODCICS	-AAK	TMPLATE1	RELEASED	OUTSERVICE	ATI	TTI	CREATE	CICSUSER	
PRODCICS	-AAL	TMPLATE1	RELEASED	OUTSERVICE	ATI	TTI	CREATE	CICSUSER	
PRODCICS	-AAM	TMPLATE2	RELEASED	INSERVICE	ATI	TTI	CREATE	CICSUSER	
PRODCICS	-AAN	TMPLATE3	RELEASED	INSERVICE	ATI	TTI	NOCREATE	CICSUSER	
PRODCICS	-AAO	TMPLATE3	RELEASED	INSERVICE	ATI	TTI	CREATE	CICSUSER	
PRODCICS	-AAP	TMPLATE3	RELEASED	OUTSERVICE	ATI	TTI	CREATE	CICSUSER	
PRODCICS	-AAQ	TMPLATE3	RELEASED	OUTSERVICE	ATI	TTI	CREATE	CICSUSER	
PRODCICS	-AAR	TMPLATE3	RELEASED	OUTSERVICE	ATI	TTI	CREATE	CICSUSER	
PRODCICS	-AAS	TMPLATE3	RELEASED	OUTSERVICE	ATI	TTI	CREATE	CICSUSER	
PRODCICS	-AAT	TMPLATE3	RELEASED	OUTSERVICE	ATI	TTI	CREATE	CICSUSER	
PRODCICS	-AAU	TMPLATE3	RELEASED	OUTSERVICE	ATI	TTI	CREATE	CICSUSER	
PRODCICS	-AAV	TMPLATE3	RELEASED	OUTSERVICE	ATI	TTI	CREATE	CICSUSER	
PRODCICS	-AAW	TMPLATE3	RELEASED	OUTSERVICE	ATI	TTI	CREATE	CICSUSER	
PRODCICS	-AAX	TMPLATE3	RELEASED	OUTSERVICE	ATI	TTI	CREATE	CICSUSER	
PRODCICS	-AAY	TMPLATE3	RELEASED	OUTSERVICE	ATI	TTI	CREATE	CICSUSER	
PRODCICS	CBRF	CBRF	RELEASED	INSERVICE	ATI	TTI	NOCREATE	CICSUSER	
PRODCICS	CERR		NOTAPPLIC	INSERVICE	NOATI	TTI	NOTAPPLIC	CICSUSER	
PRODCICS	CNSL		NOTAPPLIC	INSERVICE	ATI	TTI	NOTAPPLIC	CNSL	
PRODCICS	CO01		NOTAPPLIC	INSERVICE	ATI	TTI	NOTAPPLIC	CNSL	
PRODCICS	CO02		NOTAPPLIC	INSERVICE	ATI	TTI	NOTAPPLIC	CNSL	
PRODCICS	CO03		NOTAPPLIC	INSERVICE	ATI	TTI	NOTAPPLIC	CNSL	
PRODCICS	CO04		NOTAPPLIC	INSERVICE	ATI	TTI	NOTAPPLIC	CNSL	
PRODCICS	CO05		NOTAPPLIC	INSERVICE	ATI	TTI	NOTAPPLIC	CNSL	
PRODCICS	CO06		NOTAPPLIC	INSERVICE	ATI	TTI	NOTAPPLIC	CNSL	
PRODCICS	CO07		NOTAPPLIC	INSERVICE	ATI	TTI	NOTAPPLIC	CNSL	
PRODCICS	CO08		NOTAPPLIC	INSERVICE	ATI	TTI	NOTAPPLIC	CNSL	
PRODCICS	CO09		NOTAPPLIC	INSERVICE	ATI	TTI	NOTAPPLIC	CNSL	
PRODCICS	CO10		NOTAPPLIC	INSERVICE	ATI	TTI	NOTAPPLIC	CNSL	
PRODCICS	CO11		NOTAPPLIC	INSERVICE	ATI	TTI	NOTAPPLIC	CNSL	
PRODCICS	CO12		NOTAPPLIC	INSERVICE	ATI	TTI	NOTAPPLIC	CNSL	
PRODCICS	CO13		NOTAPPLIC	INSERVICE	ATI	TTI	NOTAPPLIC	CNSL	

IZE0100I Connected user SYSA to host l...m1.boeblingen.de.ibm.com on port 27283 | Inx

CICS Explorer – connected ...

IBM CICS Explorer - C:/CICS-Work

File Edit Projekt Operations Definitions - Suchen Window Help

ISC/MRO Con TCP/IP Servic Terminals **Programs** Transactions TS Queues Transaction Cl Tasks Files TD Queues

CNX0211I Context: PRODCICS. Resource: PROGRAM. 1.603 records collected at 28.09.2012 18:04:08

Region	Name	Status	Use Count	Concurrent Us...	Language	Share Status	CEDF Status	NEWCOPY Status
PRODCICS	\$EDTCPM	✓ ENABLED	0	0	C	N/A	CEDF	NOTREQUIRED
PRODCICS	\$EDTCPV	✓ ENABLED	0	0	C	N/A	CEDF	NOTREQUIRED
PRODCICS	ARXITCPU	✓ ENABLED	0	0	ASSEMBLER	N/A	CEDF	NOTREQUIRED
PRODCICS	BSTADMII	✓ ENABLED	0	0	ASSEMBLER	N/A	CEDF	NOTREQUIRED
PRODCICS	CEEBINT	✓ ENABLED	1	1	ASSEMBLER	N/A	CEDF	NOTREQUIRED
PRODCICS	CEEBNATX	✓ ENABLED	0	0	ASSEMBLER	N/A	CEDF	NOTREQUIRED
PRODCICS	CEECBLDY	✓ ENABLED	0	0	ASSEMBLER	N/A	CEDF	NOTREQUIRED
PRODCICS	CEECCICS	✓ ENABLED	1	1	ASSEMBLER	N/A	CEDF	NOTREQUIRED
PRODCICS	CEECDATX	✓ ENABLED	0	0	ASSEMBLER	N/A	CEDF	NOTREQUIRED
PRODCICS	CEECMI	✓ ENABLED	0	0	ASSEMBLER	N/A	CEDF	NOTREQUIRED
PRODCICS	CEECOPT	✓ ENABLED	1	1	ASSEMBLER	N/A	CEDF	NOTREQUIRED
PRODCICS	CEECRHP	✓ ENABLED	0	0	ASSEMBLER	N/A	CEDF	NOTREQUIRED
PRODCICS	CEECXITA	✓ ENABLED	1	1	ASSEMBLER	N/A	CEDF	NOTREQUIRED
PRODCICS	CEECXTAN	✓ ENABLED	1	1	ASSEMBLER	N/A	CEDF	NOTREQUIRED
PRODCICS	CEECZST	✓ ENABLED	0	0	ASSEMBLER	N/A	CEDF	NOTREQUIRED
PRODCICS	CEEDATE	✓ ENABLED	0	0	ASSEMBLER	N/A	CEDF	NOTREQUIRED
PRODCICS	CEEDATM	✓ ENABLED	0	0	ASSEMBLER	N/A	CEDF	NOTREQUIRED
PRODCICS	CEEDAYS	✓ ENABLED	0	0	ASSEMBLER	N/A	CEDF	NOTREQUIRED
PRODCICS	CEEDCOD	✓ ENABLED	0	0	ASSEMBLER	N/A	CEDF	NOTREQUIRED
PRODCICS	CEEDSHP	✓ ENABLED	0	0	ASSEMBLER	N/A	CEDF	NOTREQUIRED
PRODCICS	CEEDYWK	✓ ENABLED	0	0	ASSEMBLER	N/A	CEDF	NOTREQUIRED
PRODCICS	CEENV	✓ ENABLED	0	0	ASSEMBLER	N/A	CEDF	NOTREQUIRED
PRODCICS	CEEEV000	✓ ENABLED	0	0	NOTDEFINED	N/A	CEDF	REQUIRED
PRODCICS	CEEEV001	✓ ENABLED	0	0	NOTDEFINED	N/A	CEDF	REQUIRED
PRODCICS	CEEEV002	✓ ENABLED	0	0	NOTDEFINED	N/A	CEDF	REQUIRED
PRODCICS	CEEEV003	✓ ENABLED	1	1	ASSEMBLER	N/A	CEDF	NOTREQUIRED
PRODCICS	CEEEV004	✓ ENABLED	0	0	NOTDEFINED	N/A	CEDF	REQUIRED
PRODCICS	CEEEV005	✓ ENABLED	1	1	ASSEMBLER	N/A	CEDF	NOTREQUIRED
PRODCICS	CEEEV006	✓ ENABLED	0	0	NOTDEFINED	N/A	CEDF	REQUIRED
PRODCICS	CEEEV007	✓ ENABLED	0	0	NOTDEFINED	N/A	CEDF	REQUIRED
PRODCICS	CEEEV008	✓ ENABLED	0	0	NOTDEFINED	N/A	CEDF	REQUIRED
PRODCICS	CEEEV009	✓ ENABLED	0	0	NOTDEFINED	N/A	CEDF	REQUIRED
PRODCICS	CEEEV010	✓ ENABLED	1	1	ASSEMBLER	N/A	CEDF	NOTREQUIRED
PRODCICS	CEEEV011	✓ FNARIFD	0	0	NOTDEFINED	N/A	CEDF	RFOLIRFD

IZE0100I Connected user SYSA to host l...m1.boeblingen.de.ibm.com on port 27283 | Inx

CICS Explorer – connected ...

The screenshot displays the IBM CICS Explorer interface. The main window shows a table of programs for the PRODCICS region. A red arrow points to the 'Programs' tab in the top navigation bar. An inset terminal window shows the output of a CICS command, displaying the status of various programs and their resources.

Region	Name	Status	Use Count	Concurrent Us...	Language	Share Status	CEDF Status	NEWCOPY Status
PRODCICS	\$EDCTCPM	✓ ENABLED	0	0	C	N/A	CEDF	NOTREQUIRED
PRODCICS	\$EDTCPV	✓ ENABLED	0	0	C	N/A	CEDF	NOTREQUIRED
PRODCICS	ARXITCPU	✓ ENABLED	0	0	ASSEMBLER	N/A	CEDF	NOTREQUIRED
PRODCICS	BSTADMII	✓ ENABLED	0	0	ASSEMBLER	N/A	CEDF	NOTREQUIRED
PRODCICS	CEEBINT	✓ ENABLED	1	1	ASSEMBLER	N/A	CEDE	NOTFOURFD
PRODCICS	CEEBNATX	✓ ENABLED	0	0				
PRODCICS	CEECBLDY	✓ ENABLED	0	0				
PRODCICS	CEECCICS	✓ ENABLED	1	1				
PRODCICS	CEECDATX	✓ ENABLED	0	0				
PRODCICS	CEECMI	✓ ENABLED	0	0				
PRODCICS	CEECOPT	✓ ENABLED	1	1				
PRODCICS	CEECRHP	✓ ENABLED	0	0				
PRODCICS	CEECXITA	✓ ENABLED	1	1				
PRODCICS	CEECXTAN	✓ ENABLED	1	1				
PRODCICS	CEECZST	✓ ENABLED	0	0				
PRODCICS	CEEDATE	✓ ENABLED	0	0				
PRODCICS	CEEDATM	✓ ENABLED	0	0				
PRODCICS	CEEDAYS	✓ ENABLED	0	0				
PRODCICS	CEEDCOD	✓ ENABLED	0	0				
PRODCICS	CEEDSHP	✓ ENABLED	0	0				
PRODCICS	CEEDYWK	✓ ENABLED	0	0				
PRODCICS	CEEENV	✓ ENABLED	0	0				
PRODCICS	CEEEV000	✓ ENABLED	0	0				
PRODCICS	CEEEV001	✓ ENABLED	0	0				
PRODCICS	CEEEV002	✓ ENABLED	0	0				
PRODCICS	CEEEV003	✓ ENABLED	1	1				
PRODCICS	CEEEV004	✓ ENABLED	0	0				
PRODCICS	CEEEV005	✓ ENABLED	1	1				
PRODCICS	CEEEV006	✓ ENABLED	0	0				
PRODCICS	CEEEV007	✓ ENABLED	0	0				
PRODCICS	CEEEV008	✓ ENABLED	0	0				
PRODCICS	CEEEV009	✓ ENABLED	0	0				
PRODCICS	CEEEV010	✓ ENABLED	1	1				
PRODCICS	CFFV011	✓ FNARFD	0	0				

```

I PROG
STATUS: RESULTS - OVERTYPE TO MODIFY
Prog($EDCTCPM) Len(0000000) C Pro Ena Pri Ced
Res(000) Use(0000000000) Bel Uex Ful
Prog($EDTCPV) Len(0000000) C Pro Ena Pri Ced
Res(000) Use(0000000000) Bel Uex Ful
Prog(ARXITCPU) Len(0000000) Ass Pro Ena Pri Ced
Res(000) Use(0000000000) Bel Uex Ful
Prog(BSTADMII) Len(0000000) Ass Pro Ena Pri Ced
Res(000) Use(0000000000) Bel Cex Ful
Prog(CEEBINT ) Len(0000008) Ass Pro Ena Pri Ced
Res(001) Use(0000000001) Bel Uex Ful
Prog(CEEBNATX) Len(0000000) Ass Pro Ena Sha Ced
Res(000) Use(0000000000) Bel Uex Ful
Prog(CEECBLDY) Len(0000000) Ass Pro Ena Pri Ced
Res(000) Use(0000000000) Bel Uex Ful
Prog(CEECCICS) Len(0043464) Ass Pro Ena Sha Ced
Res(001) Use(0000000001) Bel Uex Ful
+ Prog(CEEDATX) Len(0000000) Ass Pro Ena Pri Ced
Res(000) Use(0000000000) Bel Uex Ful

SYSID=CIC2 APPLID=PRODCICS
RESPONSE: NORMAL TIME: 16.21.55 DATE: 09.28.12
PF 1 HELP 3 END 7 SBH 8 SFH 9 MSG 10 SB 11 SF
  
```


CICS Explorer – connected ...

IBM CICS Explorer - C:/CICS-Work

File Edit Projekt Operations Definitions - Suchen Window Help

ISC/MRO Con TCP/IP Servic Terminals Programs **Transactions** TS Queues Transaction Cl Tasks Files TD Queues

CNX0211I Context: PRODCICS. Resource: LOCTRAN. 259 records collected at 28.09.2012 18:06:15

Region	Name	Status	Use Count	Program	Priority	Transaction ...	Purgeability	Dumping	Routing
PRODCICS	cler	ENABLED	0	CEL4RTO	1	DFHTCL00	NOTPURGEA...	TRANDUMP	STATIC
PRODCICS	disc	ENABLED	0	CLIENT01	1	DFHTCL00	NOTPURGEA...	TRANDUMP	STATIC
PRODCICS	emai	ENABLED	0	CLIENT01	1	DFHTCL00	NOTPURGEA...	TRANDUMP	STATIC
PRODCICS	ftp	ENABLED	0	FTP01	1	DFHTCL00	NOTPURGEA...	TRANDUMP	STATIC
PRODCICS	iccf	ENABLED	0	DTSICCF	1	DFHTCL00	NOTPURGEA...	TRANDUMP	STATIC
PRODCICS	lpr	ENABLED	0	CLIENT01	1	DFHTCL00	NOTPURGEA...	TRANDUMP	STATIC
PRODCICS	newc	ENABLED	0	EDCCNEWC	1	DFHTCL00	NOTPURGEA...	TRANDUMP	STATIC
PRODCICS	ping	ENABLED	0	CLIENT01	1	DFHTCL00	NOTPURGEA...	TRANDUMP	STATIC
PRODCICS	rexe	ENABLED	0	CLIENT01	1	DFHTCL00	NOTPURGEA...	TRANDUMP	STATIC
PRODCICS	ropc	ENABLED	0	EDCYCROP	1	DFHTCL00	NOTPURGEA...	TRANDUMP	STATIC
PRODCICS	teln	ENABLED	0	TELNET01	1	DFHTCL00	NOTPURGEA...	TRANDUMP	STATIC
PRODCICS	trac	ENABLED	0	CLIENT01	1	DFHTCL00	NOTPURGEA...	TRANDUMP	STATIC
PRODCICS	APVU	ENABLED	0	INWPCCOM	20	DFHTCL00	PURGEABLE	TRANDUMP	STATIC
PRODCICS	ARPS	ENABLED	0	DFH\$ARPS	1	DFHTCL00	NOTPURGEA...	TRANDUMP	STATIC
PRODCICS	CATA	ENABLED	1	DFHZATA	255	DFHTCL00	PURGEABLE	TRANDUMP	STATIC
PRODCICS	CATD	ENABLED	1	DFHZATD	255	DFHTCL00	PURGEABLE	TRANDUMP	STATIC
PRODCICS	CATR	ENABLED	1	DFHZATR	255	DFHTCL00	NOTPURGEA...	TRANDUMP	STATIC
PRODCICS	CCIN	ENABLED	0	DFHZCN1	254	DFHCOMCL	PURGEABLE	TRANDUMP	STATIC
PRODCICS	CDTS	ENABLED	0	DFHZATS	255	DFHTCL00	PURGEABLE	TRANDUMP	STATIC
PRODCICS	CEBR	ENABLED	0	DFHEDFBR	1	DFHTCL00	NOTPURGEA...	TRANDUMP	STATIC
PRODCICS	CECI	ENABLED	0	DFHECIP	1	DFHTCL00	PURGEABLE	TRANDUMP	STATIC
PRODCICS	CECS	ENABLED	0	DFHECSP	1	DFHTCL00	PURGEABLE	TRANDUMP	STATIC
PRODCICS	CEDA	ENABLED	0	DFHEDAP	1	DFHTCL00	PURGEABLE	TRANDUMP	STATIC
PRODCICS	CEDB	ENABLED	0	DFHEDAP	1	DFHTCL00	PURGEABLE	TRANDUMP	STATIC
PRODCICS	CEDC	ENABLED	0	DFHEDAP	1	DFHTCL00	PURGEABLE	TRANDUMP	STATIC
PRODCICS	CEDF	ENABLED	0	DFHEDFP	1	DFHTCL00	PURGEABLE	TRANDUMP	STATIC
PRODCICS	CEDX	ENABLED	0	DFHEDFP	1	DFHTCL00	PURGEABLE	TRANDUMP	STATIC
PRODCICS	CEGN	ENABLED	0	DFHCEGN	255	DFHTCL00	PURGEABLE	TRANDUMP	STATIC
PRODCICS	CEHP	ENABLED	0	DFHCHS	1	DFHTCL00	NOTPURGEA...	TRANDUMP	STATIC
PRODCICS	CEHS	ENABLED	0	DFHCHS	1	DFHTCL00	NOTPURGEA...	TRANDUMP	STATIC
PRODCICS	CEMS	ENABLED	0	DFHEMSP	1	DFHTCL00	NOTPURGEA...	TRANDUMP	STATIC
PRODCICS	CEMT	ENABLED	0	DFHEMTP	255	DFHTCL00	NOTPURGEA...	TRANDUMP	STATIC
PRODCICS	CEOS	ENABLED	0	DFHEMSP	1	DFHTCL00	NOTPURGEA...	TRANDUMP	STATIC
PRODCICS	CEOT	ENABLED	0	DFHEOTP	255	DFHTCL00	PURGEABLE	TRANDUMP	STATIC
PRODCICS	CEPW	ENABLED	0	DFHPSOP	254	DFHTCL00	NOTPURGEA...	TRANDUMP	STATIC
PRODCICS	CESC	ENABLED	0	DFHCESC	255	DFHTCL00	NOTPURGEA...	TRANDUMP	STATIC
PRODCICS	CESF	ENABLED	0	DFHSFP	1	DFHTCL00	PURGEABLE	TRANDUMP	STATIC
PRODCICS	CESN	ENABLED	0	DFHSNP	1	DFHTCL00	PURGEABLE	TRANDUMP	STATIC
PRODCICS	CEST	ENABLED	0	DFHESTP	255	DFHTCL00	PURGEABLE	TRANDUMP	STATIC
PRODCICS	CETR	ENABLED	0	DFHCETRA	255	DFHTCL00	NOTPURGEA...	TRANDUMP	STATIC
PRODCICS	CFTS	ENABLED	0	DFHZATS	255	DFHTCL00	NOTPURGEA...	TRANDUMP	STATIC

IZE0100I Connected user SYSA to host l...m1.boeblingen.de.ibm.com on port 27283 | Inx

CICS Explorer – connected ...

IBM CICS Explorer - C:/CICS-Work

File Edit Projekt Operations Definitions - Suchen Window Help

ISC/MRO Con TCP/IP Servic Terminals Programs Transactions TS Queues Transaction Cl Tasks Files TD Queues

CNX0211I Context: PRODCICS. Resource: LOCFILE. 14 records collected at 28.09.2012 18:07:47

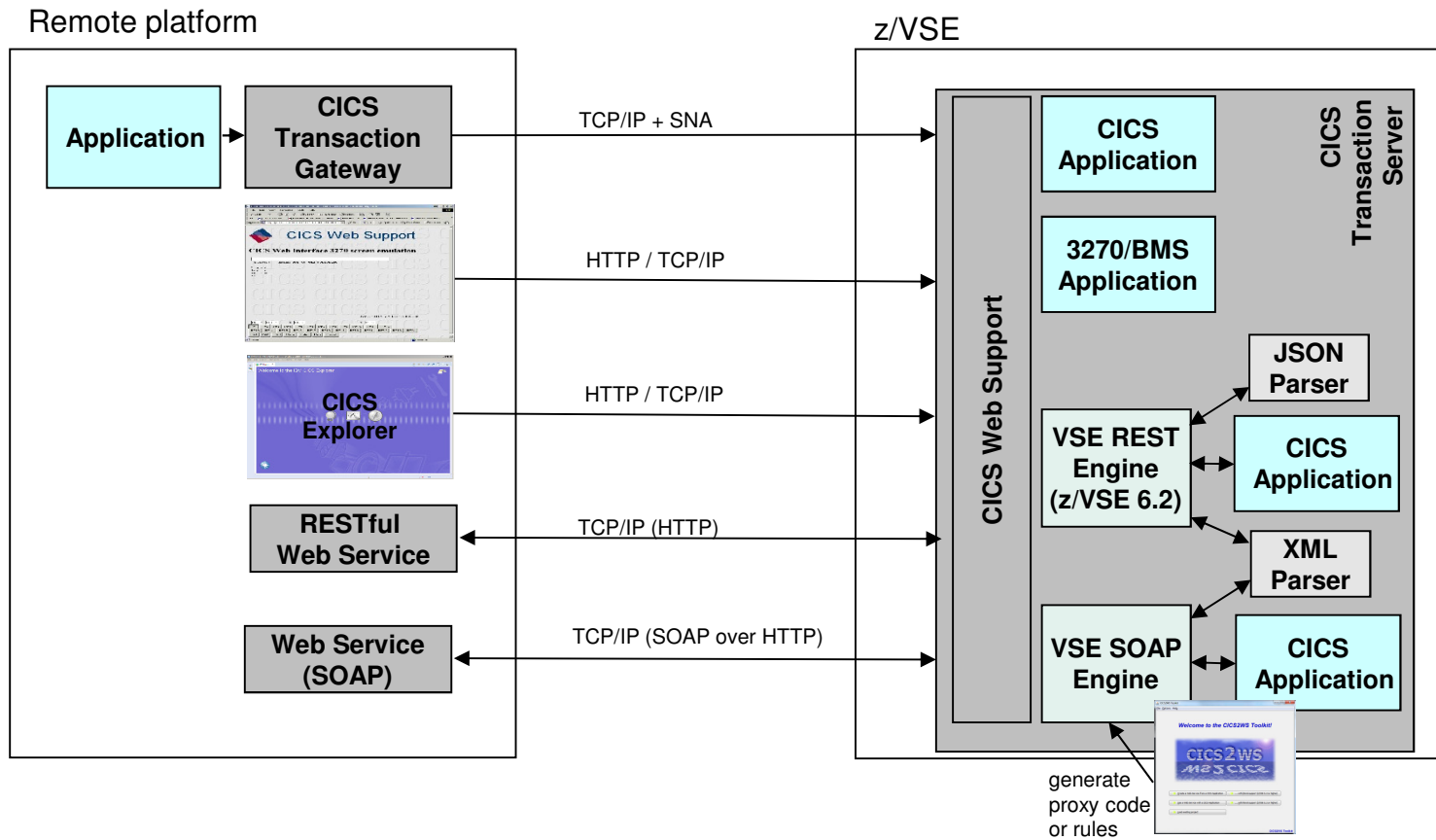
Region	Name	Status	Open Status	Add	Browse	Delete	Read	Update	LSR Pool ID	DS Name
PRODCICS	BSTCNTL	✓ ENABLED	CLOSED	ADDABLE	BROWSABLE	DELETABLE	READABLE	UPDATABLE	0	VSE.BSTCN...
PRODCICS	DFHCSD	UNENABLED	CLOSED	ADDABLE	BROWSABLE	DELETABLE	READABLE	UPDATABLE	1	CICS.CSD
PRODCICS	EZACACH	✓ ENABLED	CLOSED	ADDABLE	BROWSABLE	DELETABLE	READABLE	UPDATABLE	1	
PRODCICS	EZACONF	✓ ENABLED	CLOSED	ADDABLE	BROWSABLE	DELETABLE	READABLE	NOTUPDAT...	1	
PRODCICS	IESCNTL	✓ ENABLED	OPEN	ADDABLE	BROWSABLE	DELETABLE	READABLE	UPDATABLE	1	VSE.CONT...
PRODCICS	IESLDUM	✓ ENABLED	CLOSED	ADDABLE	BROWSABLE	DELETABLE	READABLE	UPDATABLE	1	VSE.LDAP...
PRODCICS	IESPRB	✓ ENABLED	OPEN	ADDABLE	NOTBROW...	NOTDELET...	READABLE	UPDATABLE	1	CICS2.ONL...
PRODCICS	IESROUT	✓ ENABLED	OPEN	ADDABLE	BROWSABLE	DELETABLE	READABLE	UPDATABLE	1	VSE.MESSA...
PRODCICS	IESTRFL	✓ ENABLED	OPEN	NOTADDABLE	NOTBROW...	NOTDELET...	READABLE	NOTUPDAT...	1	VSE.TEXT...
PRODCICS	INWFILE	✓ ENABLED	CLOSED	ADDABLE	BROWSABLE	DELETABLE	READABLE	UPDATABLE	1	PC.HOST.T...
PRODCICS	RFSDIR1	✓ ENABLED	CLOSED	ADDABLE	BROWSABLE	DELETABLE	READABLE	UPDATABLE	1	CICREX.FP...
PRODCICS	RFSDIR2	✓ ENABLED	CLOSED	ADDABLE	BROWSABLE	DELETABLE	READABLE	UPDATABLE	1	CICREX.FP...
PRODCICS	RFSPOL1	✓ ENABLED	CLOSED	ADDABLE	BROWSABLE	DELETABLE	READABLE	UPDATABLE	1	CICREX.FP...
PRODCICS	RFSPOL2	✓ ENABLED	CLOSED	ADDABLE	BROWSABLE	DELETABLE	READABLE	UPDATABLE	1	CICREX.FP...

IZE0100I Connected user SYSA to host l...m1.boeblingen.de.ibm.com on port 27283

lnx

CICS Connectivity

- CICS Web Support is the base of CICS connectivity



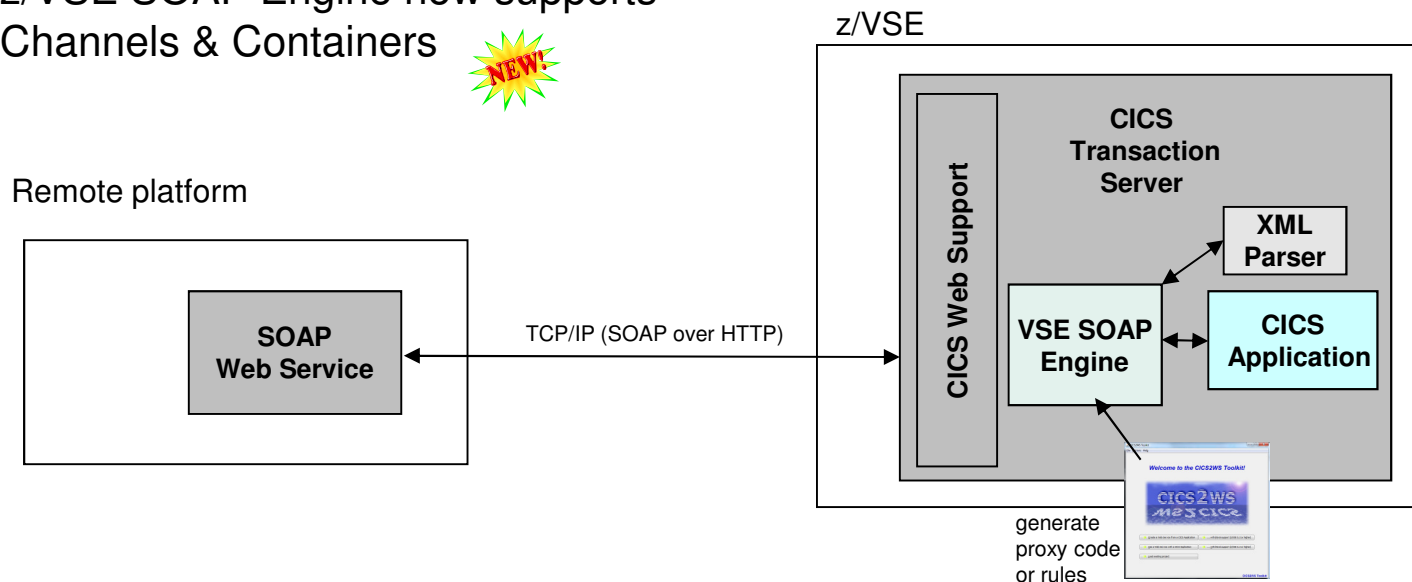
SOAP / Web Services support

- **Web Service-enable z/VSE CICS applications**

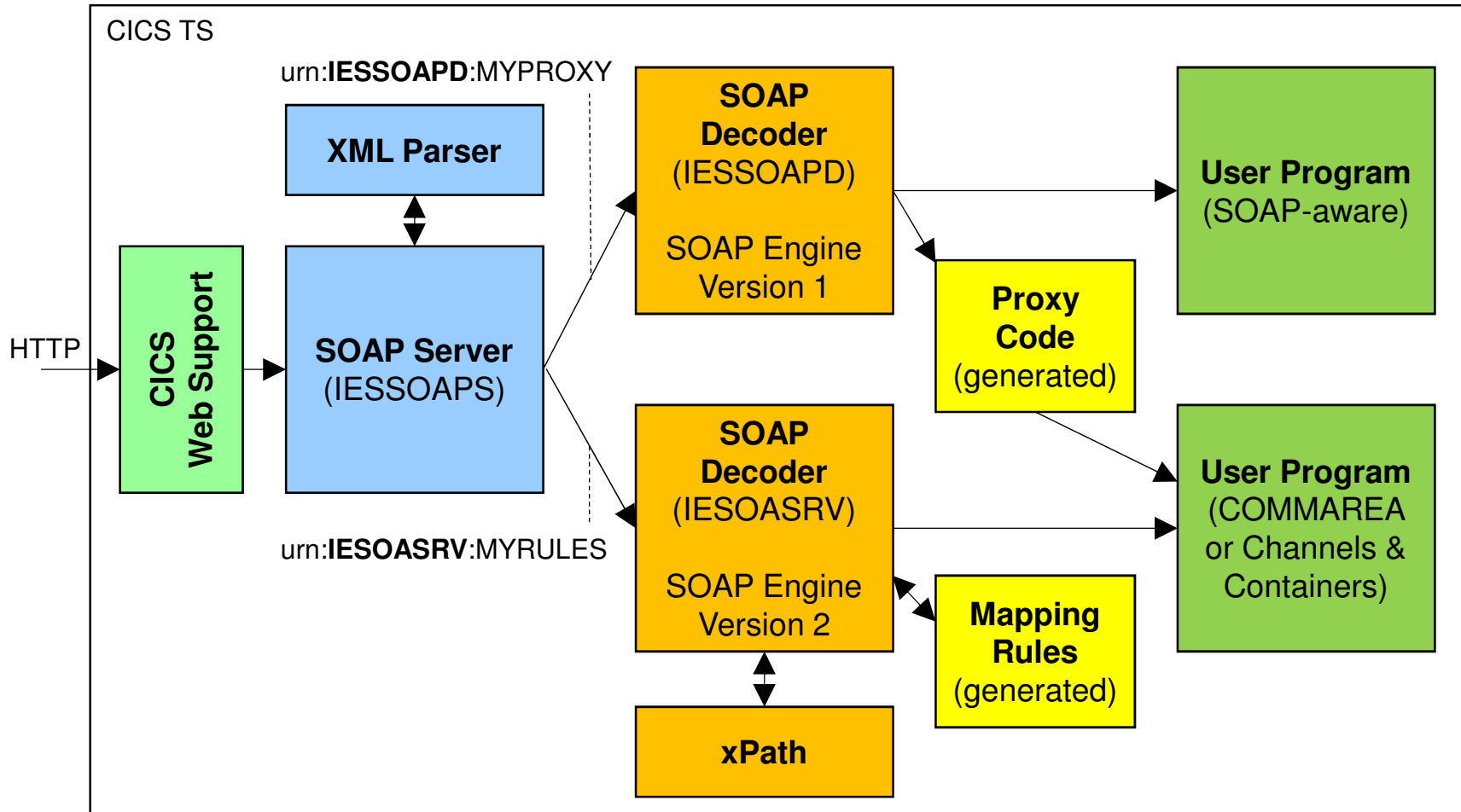
- Provide existing CICS applications as Web Service to the outside world
 - z/VSE as the SOAP server
- Use/call external Web Services from within z/VSE CICS applications
 - z/VSE as the SOAP client
- CICS2WS Tool is used to generate proxy code or mapping rules

- **z/VSE 6.2:**

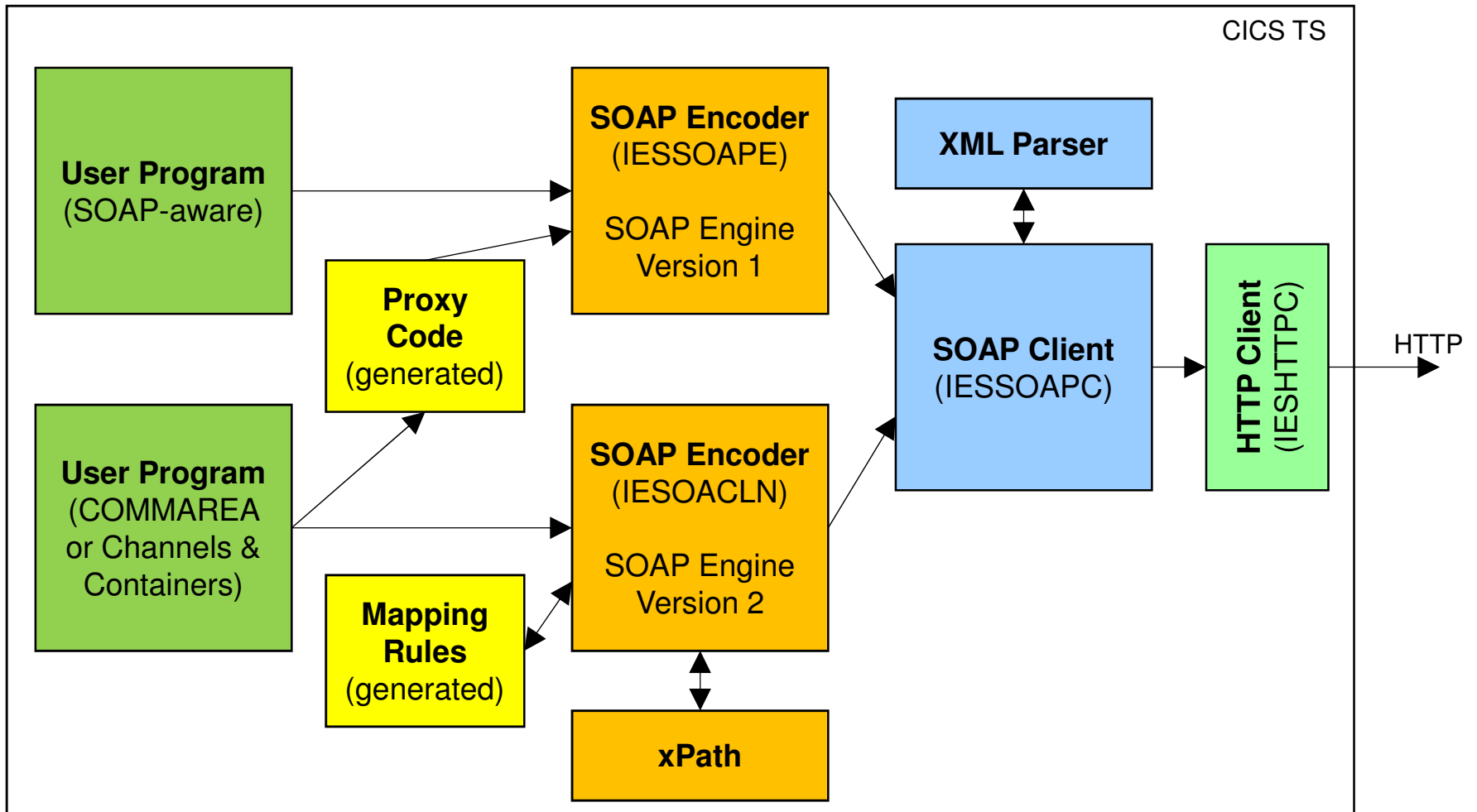
- z/VSE SOAP Engine now supports Channels & Containers



z/VSE as SOAP Server



z/VSE as SOAP Client

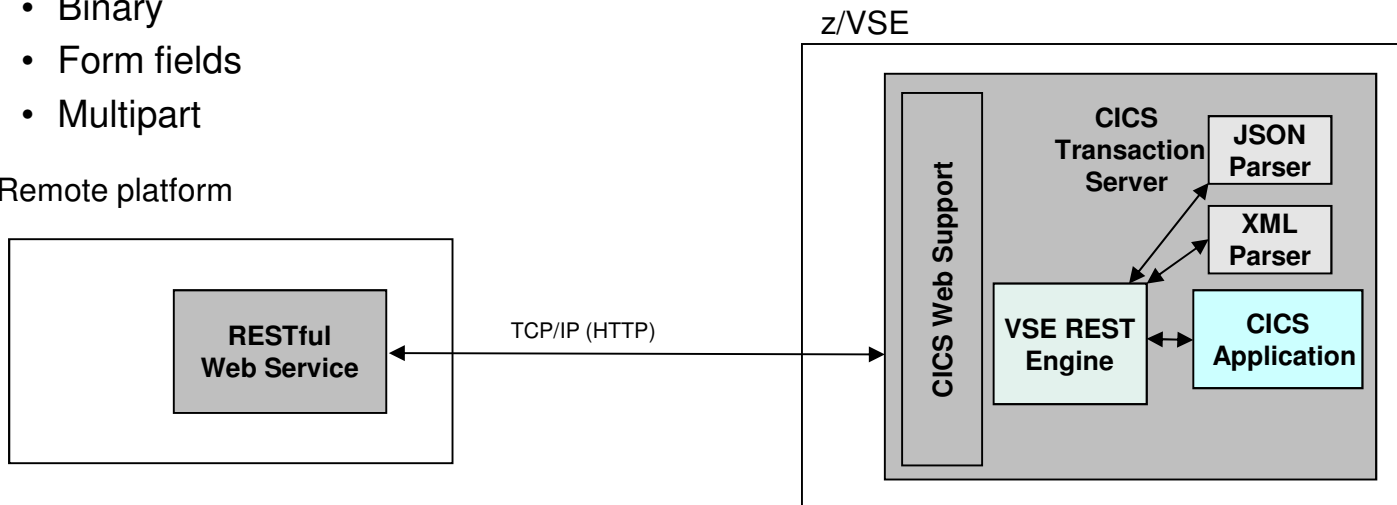


z/VSE 6.2: RESTful Web Services support

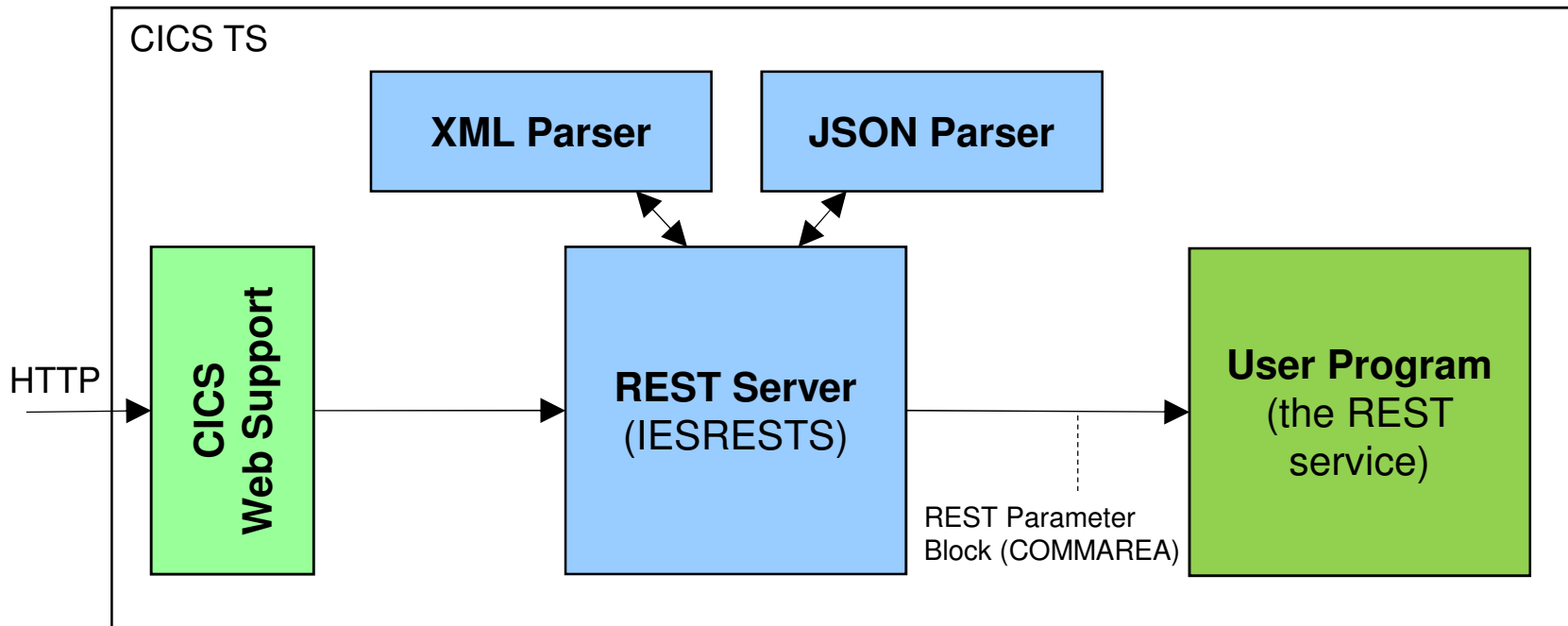


- **Use REST (Representational State Transfer) with CICS applications**
 - Provide existing CICS applications as RESTful Web Service to the outside world
 - z/VSE as the REST server
 - Use/call external RESTful Web Services from within z/VSE CICS applications
 - z/VSE as the REST client
 - Payload can be:
 - JSON (JavaScript Object Notation)
 - XML
 - Plain text
 - Binary
 - Form fields
 - Multipart

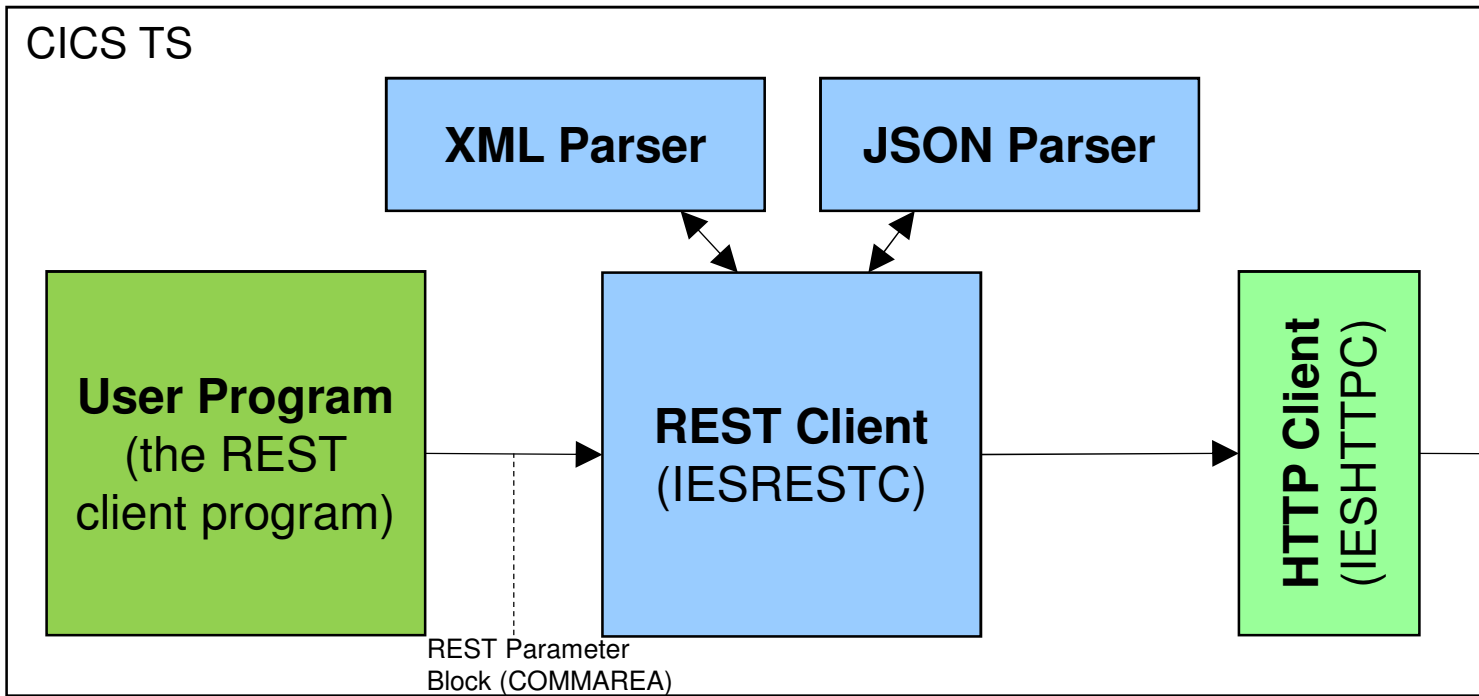
Remote platform



z/VSE 6.2: z/VSE as a REST Server



z/VSE 6.2: z/VSE as a REST Client



CICS TS Fix Lists

- CICS TS for z/VSE V2.1:
 - <http://www-01.ibm.com/support/docview.wss?uid=swg27046982>
- CICS TS for VSE/ESA V1.1.1
 - <http://www-01.ibm.com/support/docview.wss?rs=1083&uid=swg27015142>

The screenshot shows the IBM Support Portal interface. At the top, there's a navigation bar with 'Industries & solutions', 'Services', 'Products', 'Support & downloads', and 'My IBM'. A search bar is also present. The main content area is titled 'Fix list for CICS Transaction Server for z/VSE 2.1'. It includes a 'Product documentation' section with an 'Abstract' and 'Content' section. The 'Content' section states that IBM updates this fix list monthly and provides links for 'Fix list table' and 'CSV file'. There are also 'Rate this page' and 'Document information' sections. At the bottom, there's a table header for the fix list with columns: APAR, CLOSE DATE, PTF(s), Fixing APAR, HIPER?, and Abstract. The table is currently empty.

New Redbook: Migration to CICS Transaction Server for z/VSE V2.1

Available since May 10, 2017

<http://www.redbooks.ibm.com/Redbooks.nsf/RedbookAbstracts/sq248390.html?Open>

This IBM Redbooks publication provides information to help you install, tailor, and configure the CICS TS for z/VSE 2.1 product. The book is intended for IBM z/VSE customers and IBM technical personnel who are responsible for planning and migrating to IBM z/VSE 6.1 and CICS TS for z/VSE 2.1.

The book also provides information to help you understand the affect of migrating to CICS TS for z/VSE 2.1. It provides detailed guidance and samples for installing and configuring CICS TS for z/VSE 2.1. Also included in the book is a description of the CICS TS for z/VSE 2.1 features and capabilities and the affect of removing obsolete functions. The book also covers security and performance issues and provides samples for first level problem determination through the use of memory dumps or the use of trace tools.



Migration to IBM CICS Transaction Server for z/VSE

Klaus Wacker
Ingolf Salm



Questions ?



THANK YOU