

# CICS USER Experience

## CICS/VSE 2.3 to CICS/TS

Karl De Vore – WAVV 2007

[kdevore@co.lake.il.us](mailto:kdevore@co.lake.il.us)



# Agenda

- Lake County
- Lake County Environment
- Why did we stay with CICS/VSE 2.3 so long ?
- What prompted the move to CICS/TS
- CICS/VSE 2.3 to CICS/TS migration
  
- CICS Free-for-All

# Lake County

## Demographics (2000 U.S. Census)

- Population 644,356
- Caucasian 80.1%
- African American 6.9%
- Asian 3.9%
- Other 7.0%
- Two or more races 2%
- Hispanic/Latino (may be of any race) 14.4%
- Median household income:
  - Lake County \$66,973
  - Chicago \$38,625
  - Illinois \$46,590
  - U.S. \$41,994



# Lake County Environment

**Hardware:** z/890 – 220 SHARK Array

**Software:** z/VM 5.1 z/LINUX

z/VSE 3.1.1 +

## **z/VSE 3.1.1 Guests:**

Prod1 VSE: 1 CICS/TS partition - DB2 Guest sharing and VSAM

Prod2 VSE: 2 CICS/VSE 2.3 - DL/1 databases

Test1 VSE: 3 CICS/TS partitions - 2 DB2 Guest sharing

1 DB2/UDB POF

# Lake County Environment

## **Some of the things that make us different:**

NO IUI on any of the systems

NO DOSRES or SYSWK1

NO VSE libraries in VSAM SPACE

DB2 Guesting sharing -1993

External CICS Security Manager for 20+ years

## **Flavors of Cobol over the years:**

DOS/VS COBOL 1.3.1 - ????

VS COBOL II – 1.3.2 – (24 bit) - VSE/ESA 1.2.x – 1991

VS COBOL II – 1.4.0 – (31 bit) - VSE/ESA 1.3.x – 1993

COBOL/VSE 1.1.0 and LE/VSE 1.4.1 – VSE/ESA 2.3.x – 1998

COBOL/VSE 1.1.1 and LE/VSE 1.4.4 – z/VSE 3.1.1 - 2006

# Why did we stay with CICS/VSE 2.3 so long?

Up until 2003, the mainframe was on a road to death

It looked like we were going to be stuck with VSE/ESA 2.6.x due to the hardware limitations of the 9672-RB4

Prior to 2003, development was continuing with our Integrated Justice System, but it was just “Green Screen”

The other mainframe applications outside of the Integrated Justice System were (are) DL/1, and would be “going away”. Why be concerned about running them under CICS/TS and messing around with a different version of DL/1?

# Why did we stay with CICS/VSE 2.3 so long?

Assigned other (additional) responsibilities

Lack of time

Comfort and complacency...?

The unknown...?

Lots of excuses...

# What prompted the move to CICS/TS?

In a nut shell...

The success (or lack thereof) of other major systems that formerly resided on the mainframe, which were moved to alternate platforms with dismal results

The need for WEB access to our Integrated Justice System

An offer too good to refuse on a z/890 whereby we could lower our annual costs over the 9672

The mainframe was here to stay for the foreseeable future, and it was time to move forward

# CICS/VSE 2.3 to CICS/TS migration

Installed VSE/ESA 2.7.3

Brought up CICS/TS out of the box

Backed up the shipped CSD

Copied the shipped CSD to a unique CSD

# CICS/VSE 2.3 to CICS/TS migration

Reviewed DFHSIT under CICS/TS

Used the new CICS/TS default SIT as a model

Reviewed the list of obsolete parameters under CICS/TS

Reviewed these parameters under CICS/TS for Lake County

CSDACC= (READWRITE/READONLY)

CSDRECOV

CWAKEY

DFLTUSER

DSALIM

EDSALIM

# CICS/VSE 2.3 to CICS/TS migration

Reviewed DFHSIT under CICS/TS

GRPLIST

ICV

ICVR

ISC (for DB2)

LEVSE

OPERTIM

PRGDLAY

PRTYAGE

RAPOOL

# CICS/VSE 2.3 to CICS/TS migration

Reviewed DFHSIT under CICS/TS

RENTPGM

RMTRAN

SEC

SECPRFX

TCPIP

TRTABSZ

TS

XPCT (for External Security Manager)

# CICS/VSE 2.3 to CICS/TS migration

Decide how you want to define groups of resources

PCT entries

PPT entries

TCT

TYPTERMS

Device types:

3270

LU2

LU3

SCS Printers (different definitions)

# CICS/VSE 2.3 to CICS/TS migration

Decisions made:

Tried to keep “groups” small per recommendations

PCT & PPT Groups – based on application

FCT Groups – based on application

TCT – based on Departments and Branches

Attempted to keep Resources defined within a group to around 200 or less (some exceptions)

# CICS/VSE 2.3 to CICS/TS migration

Decisions made:

Used the batch utility DFHCSDUP

Due to the number of CICS systems that were being converted

Because we had used a standardized pattern in coding our MACRO tables

CICS systems were not all identical

Could easily write a VM REXX EXEC(s) to parse MACRO tables and create standardized RDO entries

Self documenting RDO entries for conversion

# CICS/VSE 2.3 to CICS/TS migration

Decisions made:

Used the batch utility DFHCSDUP

Relied heavily on Appendix C in the Resource Definition Guide:

Macro operand to RDO keyword

RDO keyword to Macro operand

Attempted to try and put as many standardized Lake County requirements in the TYPTERM definitions, PROFILE definitions, etc...

Used standard IBM definitions as models whenever possible

# CICS/VSE 2.3 to CICS/TS migration

Constructed my own CICS/TS without ICCF pointing to the unique CSD, basically using the recommendations in the Migration Guide for setting up a second CICS (unique datasets, etc...)

Eliminated the BSM totally

Implemented our External Security Manager

Brought up my own CICS/TS

# CICS/VSE 2.3 to CICS/TS migration

Some problems encountered:

The DB2 Resource Adapter wouldn't enable (Storage)

Tried implementing TCPIP in the SIT without defining a TCPIPSERVICE resource

Inactivity timeouts in CICS

Extended Attributes with Terminal definitions

Uppercase translation requirement for transactions

# CICS/VSE 2.3 to CICS/TS migration

## Sharing the CSD

The Test z/VSE system supports 3 CICS/TS partitions

3 GRPLIST are specified in each CICS startup

VSELIST (IBM supplied – unmodified)

LCLSTCOM (Common Lake County)

LC.... (Unique Lake County per CICS)

# CICS/VSE 2.3 to CICS/TS migration

## Sharing the CSD

### Samples:

```
// EXEC DFHSIP,SIZE=DFHSIP,PARM='SIT=T5,APPLID=A05TCICS,START=AUTO,DSAL*  
      IM=7M,EDSALIM=68M,SI',DSPACE=2M,OS390  
GRPLIST=(VSELIST,LCLSTCOM,LCTST5),          (CSD=READWRITE)  
// EXEC DFHSIP,SIZE=DFHSIP,PARM='SIT=D3,APPLID=A03DCICS,START=AUTO,DSAL*  
      IM=7M,EDSALIM=68M,SI',DSPACE=2M,OS390  
GRPLIST=(VSELIST,LCLSTCOM,LCDEV3),          (CSD=READONLY)  
// EXEC DFHSIP,SIZE=DFHSIP,PARM='SIT=T6,APPLID=A06TCICS,START=AUTO,DSAL*  
      IM=7M,EDSALIM=175M,SI',DSPACE=2M,OS390  
GRPLIST=(VSELIST,LCLSTCOM,LCTST6),          (CSD=READONLY)
```

# CICS/VSE 2.3 to CICS/TS migration

CICS startups:

We could start CICS by clearing the Local, Global and Restart datasets

You will lose entries placed into the Local or Global datasets such as:

```
CEMT SET SYDUMPCODE(SR0001) NOSYSDUMP MAX(0) ADD
```

Nice things:

CETR

Auxtrace Printing capabilities

# Suggestions

Virtual Storage is cheap – roughly triple the size of your existing CICS/VSE 2.3 to start

Review all the SIT parameters

Review all MACRO definitions and new RDO keywords

- Figure out the defaults and what's required

- Code requirements at the highest level possible

- Standardize your RDO entries

- Look at the shipped IBM entries and use as models

A CICS monitoring product helps and/or DFH0STAT

Become familiar with the additional facilities/transactions in CICS/TS

# Recommended reading and additional references

**Release Guide - GC33-1645-03**

**Migration Guide – GC33-1646-02**

**Resource Definition Guide – SC33-1653-06**

**Customization Guide - SC33-1652-10**

**Operations and Utilities Guide - SC33-1654-09**

**CICS-Supplied Transactions - SC33-1655-04**

**Redbook: Migration to VSE/ESA 2.4 and CICS Transaction Server  
for VSE/ESA 1.1 – SG24-5595-00**

**Presentations from prior WAVV and IBM Tech Conferences**