Make CICS 1.7 Available to TK4
28 Aug 2020

Use the following steps to get a CICS system running on TK4. Starting with Step 1, this assumes you have a running TK4 system already IPLed and you are logged on to HERC01 or another TSO userid with full system programmer access and authorities.

1. **Edit SYS1.PARMLIB(VATLST00).**

Add an entry for the new volume to make it private so temporary and user datasets would not default to this volume. The entry could look this this one:

```
CICS17,1,2,3380     ,N                    CICS pack
```

Add the entry to the end of the list of volumes and save your changes.

2. **Edit SYS1.PARMLIB(IEAAPF00).**

CICS requires its STEPLIB dataset to be APF-authorized. Add an entry to IEAAPF00 for CICS170.LOADLIB1. The entry could look like the one in bold, with other lines for reference:

SYS2.CMDLIB PUB000,
CICS170.LOADLIB1 CICS17,
EXH.EXHLIB PUB012,

Then save your changes. Log off TSO and shutdown MVS then proceed to the next step.

3. Add the new volume to your Hercules configuration.

All of the CICS 1.7 materials are contained on a single 3380 volume named CICS17. This volume is in Hercules CCKD format and is named: **cics17.3380.cckd.287**
The unit address 287 is recommended but any of the available TK4 3380 addresses can be used from 180-18F or 280-28F.

This would be a good time to back up your TK4 DASD to protect against upcoming changes to the system nucleus.

After making the volume available in Hercules, re-IPL your TK4 system and logon to TSO.

4. The new volume should be available online.

If you browse a list of datasets on that volume you should see numerous CICS related datasets. A special dataset has been prepared called CICS.TK4.JCL which contains the jobs and customization setup needed to bring CICS into TK4. We'll only run a few of these many jobs; most of them are here for reference or future changes to CICS tables or VSAM datasets.

5. Connect the CICS user catalog on new volume CICS17.

Edit job CICS.TK4.JCL(IMPORT). Make changes as needed to the JCL and submit this job to connect the VSAM user catalog on the new volume to your master catalog. Expected RC=0.

6. Make SMP/E available to your TK4 system.

The SMP/E load modules need to be resident in SYS1.LINKLIB. Use the job CICS.TK4.JCL(GIMCOPY) in order to copy the required modules into their proper place. Expected RC=0.

After the copy completes, use job CICS.TK4.JCL(SMPE) to verify that SMP/E is working and can access your CICS SMP/E CSI. The job simply lists the contents (it may run for a minute or so on a slower system and generate about 53,000 lines of output). Expected RC=0 or 4.

7. Set up the CICS applid in VTAM .

As currently configured, CICS will use the VTAM applid CICS. Run the job in CICS.TK4.JCL(CICSAPPL) to add the VTAM APPL entry to the VTAM configuration. Expect RC=0.

8. Edit SYS1.VTAMLST(ATCCON01)

This is the major node start up list for VTAM. Add the new APPL entry to this list. The **bolded** line is the new one; add it as appropriate using below as a model and save your changes.

```
*********************************************************************
*  STARTLIST   T K 4 -                                              *
*********************************************************************
ATSO,                           /* TSO application major node     */
APPLCICS,                       /* CICS application major node    */
ASNASOL,                        /* SNA network solicitor          */
AJRP,                           /* JRP (JES2 remote print)        */
```

9. Link the CICS-required Type 2 SVC into the MVS nucleus.

CICS requires an SVC for its operation. The CICS-supplied SVC is a type 2 SVC, which requires that it be linked into the MVS nucleus. Use the job CICS.TK4.JCL(LINKNUC) to perform the SVC install into the nucleus.

This job will install the SVC and relink the IEANUC01 member as IEANUC09, leaving IEANUC01 unchanged. If the link-edit step completes with RC 4 or less, the next step will rename the IEANUC01 member (your current IPL nucleus without the SVC) to IEANUC05. Then, the next step will rename the new IEANUC09 nucleus (containing the new SVC) to IEANUC01. This provides a backup nucleus as IEANUC05, which could be renamed back to IEANUC01 using a recovery system should the need arise.

Expected RCs:
Step LINK - 4
Step RENAME1 – 0
Step RENAME2 – 0

10. Browse the SYS1.VTAMLST(L3274) member.

Look at the various terminal definitions for the LOGTAB= parameters. Note the value after the = sign. If you have a stock TK4, it will say ETHLOGON after the = sign. If you installed the special modification to allow MVS to undial, or 'drop' a terminal back to VM, it will say ETHLOGVM. Or, perhaps you have some other value. Use the table below to choose how to proceed.

If your LOGTAB= parameters say:	**Do this:**
ETHLOGON	Submit the job CICS.TK4.JCL(ETHLOGON)
ETHLOGVM	Submit the job CICS.TK4.JCL(ETHLOGVM)
Some say ETHLOGON, some say ETHLOGVM	Submit both jobs ETHLOGON and ETHLOGVM from CICS.TK4.JCL
Something else	You have a customized logon table. Merge the "CICS" identified statements in columns 76 of the member CICS.TK4.JCL(ETHLOGON) into your customized logon table. Then reassemble and relink your table into SYS1.LPALIB. You may use the ETHLOGON jcl as a guide.

You must make the logon table modification in order to be able to logon to the CICS system. As shipped, the TK4 logon table will not allow access to other VTAM applications.

If you have a custom table, you must make the application id CICS accessible from the VTAM TK4 logo screen. Use the statements marked 'CICS' in column 76 in ETHLOGON to see what kinds of changes you need to merge into your custom table.

Expected RC from these jobs: 0

11. Log off TSO and shutdown MVS and re-IPL in order to bring the new nucleus active. YOU MUST IPL with the R 00,CLPA option.

Logon to your TSO userid after the IPL.

12. Start CICS.

Use the CICS start-up JCL in CICS.TK4.JCL(CICS). CICS will issue various messages but the last one to look for is CONTROL IS BEING GIVEN TO CICS.

To logon to CICS, use another 3270 known to VTAM's 3270 definitions. Type 'CICS' on the TK4 VTAM logo screen (where you would ordinarily logon to TSO). If you have success, you should see the CICS logo.

CICS usage notes:

- The CLEAR key is the important key in CICS. Use it to clear the screen so you can enter a new transaction id. A transaction id is always entered in the first 1-4 characters at top left. A transaction id is an application.

- If you just press enter without a transaction id, CICS will issue a DFH error message. No harm done; just clear the screen.
- An example transaction is CSMT. For example, enter (at top left):

  CSMT TASK

  And CICS will show you the active transactions and what terminals are active. Yours should be the only one!
- To disconnect from CICS and drop your terminal back to the TK4 logo and VTAM control, clear the screen and enter CSSF LOGOFF at the top left. You can then logon to TSO or CICS again from the TK4 logo.
- To shut down CICS (to end the job), enter:

  CSMT SHUT,Y
- You may also use CSMT (only!) from the MVS console:

  F CICS,'CSMT TASK'

  or

  F CICS,'CSMT SHUT,Y'

- Always shut down CICS properly before shutting down MVS. This is important so that CICS can checkpoint its VSAM datasets.
- There are many other stock applications supplied with CICS, such as CEMT, CEDA, CEDF. You will need CICS documentation to know how to use them.

There is very little CICS 1.7 doc at Bitsavers. However, most of the 1.5 and 1.6 documentation there will be applicable to the stock applications.

http://bitsavers.org/pdf/ibm/370/CICS_VS/

The new stuff in CICS 1.7 would also be covered by the next release: CICS 2.1:

http://bitsavers.org/pdf/ibm/370/CICS_MVS/

More on next page…

13. Other jobs in CICS.TK4.JCL.

Here is a list of the members in this dataset. The jobs in Blue are jobs that you did not run, but may need in the future.

CICS	CICS start-up JCL
CICSAPPL	Add CICS APPLID to VTAM
CICSFCT	Assemble CICS file control table
CICSSIT	Assemble CICS initialization table
CICSTCT	Assemble CICS terminal control table
CICSZONE	Definitions to build SMP/E CSI datasets for CICS
DFHCSD	Allocate and initialize CICS configuration dataset
DFHINTRA	Allocate CICS intra-partition storage
DFHRSD	Allocate CICS restart dataset
DFHTEMP	Allocate CICS temporary storage dataset
ETHLOGON	VTAM logon table
ETHLOGVM	VTAM logon table with VM drop
GIMCOPY	Copy SMP/E load modules to SYS1.LINKLIB
IMPORT	Connect the CICS user catalog to the master catalog
LINKNUC	Relink the MVS nucleus with the CICS SVC
LISTCAT	List the contents of the CICS user catalog.
SMPE	Test SMP/E execution

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