CICS/TS – resolving issues and getting results with Level 2 CICS Support

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AGENDA

➢ Problem determination and lookup - site information

➢ Introduction

➢ Gotchas

➢ Known Issues

➢ Sending Documentation to the Support Center

➢ Any Questions?

Problem determination and lookup - site information

- CICS TS for z/VSE   MustGathers

- http://www.ibm.com/support/docview.wss?uid=swg21328819

- CICS_Transaction_Server. To get to the MustGathers from the Support Portal you click on the "Troubleshooting" in the the right nav and then either "MustGather: Read first" or "Collect Troubleshooting data" in the Featured Troubleshooting links portlet.

MustGather: Read first when collecting troubleshooting data for CICS products

MustGather documents aid in problem determination and save time resolving problem management records (PMRs). These documents contain a list of the documentation you should gather so CICS Support can diagnose your specific problem. These documents also include diagnostic tips that will aid in diagnosing and solving problems.

Cause

- Collecting MustGather data early, even before opening a PMR, helps IBM® Support quickly determine if: Symptoms match known problems (rediscovery).
- There is a non-defect problem that can be identified and resolved.
- There is a defect that identifies a workaround to reduce severity.
- Locating root cause can speed development of a code fix.

Resolving the problem

1.Gather the following general information for every problem record: A complete description of the problem, including the following:

1. When did the problem first occur?
2. Is the problem a one time failure or reoccurring?
3. Was software or hardware maintenance applied?
4. Did the failure occur while doing a specific task?
5. Is the failure occurring in more than one address space?

2.CICS product version, release, and maintenance level

3.Operating system version, release, and maintenance level

4.Related products version, and release levels

5.A valid contact phone number and email address

Click on the problem type or component that best describes your CICS problem. This will provide you with a listing of the documentation that the support team requires to diagnose your problem. It might also include diagnostic hints and tips that will aid in diagnosing and solving problems.

File control wait   <<<<<<<<<<

Multiregion operation (MRO)

Program check or abend

Short on storage

Storage violation

Terminal hang

Wait or loop

FILE CONTROL WAIT

Problem(Abstract)

You are having a file control wait problem in CICS Transaction Server for VSE/ESA (CICS TS) on z/VSE. You would like to know what documentation you must collect (MustGather) so that the CICS Support team can diagnose your problem. If you gather this documentation before contacting support it will expedite the troubleshooting process, and save you time.

Cause

Many problems in file control are the result of waits for CICS or VSAM resources. Waits can often be caused by locked resources. For example, if you cancel a task that holds a resource then that resource might be locked.

FILE CONTROL WAIT

Required doc:
CICS message log and the VSE system log.

CICS Internal Trace that is included in the VSE system dump when tracing is active. The trace should be at least 4096K and when possible level 1 tracing should be on for all CICS components and level 1-2 for the FC component.

A VSE system dump of the CICS region taken as soon as you notice the wait. Use the following VSE commands to capture the dump (where **Fa** is the CICS partition that you want to dump and **cuu** is the tape address where the dump will go):

  SUSPEND Fa - temporarily take the partition out of the dispatch queue to prevent inconsistencies in the dump
  DUMP *Fa*,0-7FFFFFFF,*cuu* - include the partition, SUP, and SVA in a single dump
  RESUME Fa - put the partition back on the dispatch queue
(note that SUSPEND Fa and RESUME Fa are undocumented AR commands)

FILE CONTROL WAIT

Optional doc: If feasible, save off the dataset by using IDCAMS ALTER NEWNAME to rename the dataset and save it in place. If this is not feasible, run IDCAMS PRINT with SKIP against the dataset and any alternate indexes associated with the dataset before continuing to see if the file is okay.

If you are able to recreate the problem, consider using CICS Auxiliary Trace in combination with the VSE system dump. The dump is unlikely to tell you anything about system activity in the period leading up to the wait or loop. This is because the trace table will probably wrap before you have had a chance to respond.

FILE CONTROL WAIT

See [Exchanging information with IBM Technical Support](#) for FTP and e-mail instructions using the IBM Enhanced Customer Data Repository (ECuRep).

Go to [ServiceLink or IBMLink](#) to open an Electronic Technical Response (ETR). If you need instructions, see [open new PMRs or convert existing PMRs to electronic PMRs](#) using IBMLink ETR.

If you need to speak to an IBM technical support representative call your country representative. If you need to speak to an IBM technical support representative in the US call 1-800-IBM-SERV.

Always update the PMR to indicate that data has been sent.

FILE CONTROL WAIT

Diagnostic tips: Review the logs and dumps generated at the point of failure. Use DFHPD410 dump formatter to format domains KE=3, TR=3, DS=1, and LM=3.

Search the [CICS support site](#) for known problems using symptoms like the message number and error codes.

If you find a fixing PTF, see [Ordering CICS products and maintenance](#) for the options that are available to order CICS maintenance.

If the save area addresses are not in application code, gather the documentation and work with the CICS Level2 support team to resolve your problem.

Click on the problem type or component that best describes your CICS problem. This will provide you with a listing of the documentation that the support team requires to diagnose your problem. It might also include diagnostic hints and tips that will aid in diagnosing and solving problems.

File control wait
Multiregion operation (MRO)   <<<<<<<<<<<
Program check or abend
Short on storage
Storage violation
Terminal hang
Wait or loop

MULTIREGION OPERATION (MRO)

Problem(Abstract)

You are having a multiregion operation (MRO) problem in CICS Transaction Server for VSE/ESA (CICS TS) V1.1.1 on z/VSE. You would like to know what documentation you must collect (MustGather) so that the CICS Support team can diagnose your problem. If you gather this documentation before contacting support it will expedite the troubleshooting process, and save you time.

Cause

When running in a multi-region environment, documentation from a single region might not be sufficient to determine the cause of the failure.

MULTIREGION OPERATION (MRO)

Optional (MustGather) data:

•CICS Auxiliary Trace might be useful if you can recreate the problem. You would need to run the trace on all of the CICS regions involved in the MRO problem.

•SDAID Trace for XPCC and SVC 71. Trace every entry to XPCC SVC 71 and the SVC exit:

```
TRACE SVC=71 AR=ALL              -
     OUTPUT=(REG TOD DUMP REG=1:60  -
     DUMP PTR=1:28 DMP=0:E0)
TRACE XPCC APPL=* TOAPPL=* FUNC=* DIR=BOTH -
     OUTP=(TOD XPCCB)
```

Click on the SDAID trace link above for details on SDAID trace.

REG=1:60 dumps the XPCCB on entry to SVC 71. This contains settings that can be useful in diagnosing problems with MRO.

DUMP PTR=1:28 DMP=0:E0 dumps the CRCB as pointed at by the XPCCB+28. This contains information about

the status of the MRO connection.

•SDAID dump taken at the point of failure.

MULTIREGION OPERATION (MRO)

Required doc:

CICSRequired (MustGather) data:

CICS message log of both regions in the MRO conversation.

[VSE system dump](#) taken at the point of failure. Setting system or transaction dump codes by using CEMT is preferred. Ensure appropriate dump codes are set in both CICS regions within the conversation.

NOTE: Messages or abends are likely to be different on each side of the conversation. Click on the VSE system dump link above for detailed directions.

[CICS Internal Trace](#) should be running within CICS regions participating in the conversation. Ensure the internal trace size is set to a minimum of 4096K. Also, ensure standard level 1 tracing is turned on for all components and level 1-2 for the IS component. Use the CETR transaction to turn on internal trace, set internal trace size, and to set component trace levels. Click on the CICS internal trace link above for details about trace and using CETR.
 message log and the VSE system log.

[CICS Internal Trace](#) that is included in the VSE system dump when tracing is active. The trace should be at least 4096K and when possible level 1 tracing should be on for all CICS components and level 1-2 for the FC component.

MULTIREGION OPERATION (MRO)

Diagnostic tips:

• Review the logs and dumps generated at the point of failure. When looking at the dump, use the DFHPD410 formatter with MRO=3, DS=3, KE=3, TR=3.

• Search the CICS support site for known problems using symptoms like the message number and error codes.

• If you find a fixing PTF, see Ordering CICS products and maintenance for the options that are available to order CICS maintenance.

• Gather the documentation and work with the CICS support team to resolve your problem.

Learn more about MRO:

• Dealing with MRO problems
• CICS TS for VSE/ESA Library

MULTIREGION OPERATION (MRO)

Exchanging data with IBM Support

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[File control wait](#)
[Multiregion operation (MRO)](#)
[Program check or abend](#)   <<<<<<<<<<<<<<<<<<<<
[Short on storage](#)
[Storage violation](#)
[Terminal hang](#)
[Wait or loop](#)

PROGRAM CHECK OR ABEND

Problem(Abstract)
You are having a program check or abend problem in CICS Transaction Server for VSE/ESA (CICS TS) on z/VSE. You would like to know what documentation you must collect (MustGather) so that the CICS Support team can diagnose your problem. If you gather this documentation before contacting support it will expedite the troubleshooting process, and save you time.
Resolving the problem
Collect this MustGather data before contacting IBM Support:

PROGRAM CHECK OR ABEND

Required (MustGather) data:

CICS log containing the messages leading up to the abend plus the abend code and the abend message. If multiple abends occur within the same time frame (seconds), the first abend is often the cause of subsequent abends. Therefore, ensure the diagnostic information you send to IBM is for the initial abend unless otherwise requested or not available.

[VSE system dump](#) taken at the point of failure. If system dumping is permitted for the abend code and system dumping has not been disabled, a system dump will be taken when the error is detected. See number 3 under VSE system dump if you are not getting a dump when the abend occurs.

PROGRAM CHECK OR ABEND

Optional (MustGather) data: CICS transaction dump taken at the point of failure. The transaction dump often does not contain enough information to diagnose the problem. Therefore, if you only have a transaction dump and the problem is re-creatable you can request a system dump by doing one of the following:

> For a transaction abend code, enter **CEMT SET TRD(*xxxx*) SYS MAX(1) ADD** where *xxxx* is the transaction abend code. Ensure that MAX is set to 1 greater than CUR to capture a dump. Check this by entering **CEMT INQ TRD(*xxxx*).**
>
> For a CICS message, enter **CEMT SET SYD(*xxxxx*) SYS MAX(1) ADD**, where *xxxxx* is the CICS message number without the DFH prefix. Do this to request a system dump when you are receiving CICS message at the time of the error. It is common to suppress dumps for DFHAP0001 messages. Make sure you are not suppressing AP0001 dumps by entering **CEMT INQ SYS(AP0001)** and ensuring that SYS is specified.

CICS Internal Trace included in the VSE system dump or CICS transaction dump when tracing is active. The trace should be at least 4096K and when possible level 1 tracing should be on for all CICS components.

PROGRAM CHECK OR ABEND

Diagnostic tips:

•Review the logs and dumps generated at the point of failure. When looking at the dump, use the DFHPD410 formatter with KE=3, TR=3, LD=3.

•Search the CICS support site for known problems using symptoms like the message number and error codes.

•If you find a fixing PTF, see Ordering CICS products and maintenance for the options that are available to order CICS maintenance.

•Gather the documentation and work with the CICS support team to resolve your problem.

Learn more about program checks and abends:

•CICS TS for VSE/ESA Library

•Dealing with transaction abends

•Dealing with CICS system abends

•Abend processing

PROGRAM CHECK OR ABEND

Exchanging data with IBM Support

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File control wait
Multiregion operation (MRO)
Program check or abend
Short on storage   <<<<<<<<<<<<<<<
Storage violation
Terminal hang
Wait or loop

SHORT ON STORAGE

Problem(Abstract)
You are having a short on storage (SOS) problem in CICS Transaction Server for VSE/ESA (CICS TS) V1.1.1 on z/VSE. You would like to know what documentation you must collect (MustGather) so that the CICS Support team can diagnose your problem. If you gather this documentation before contacting support it will expedite the troubleshooting process, and save you time.

SHORT ON STORAGE

Required (MustGather) data:
[VSE system dump](#) taken at the point that the SOS condition occurs. Capture the dump by placing SM0131 or SM0133 in the system dump table. For example, enter **CEMT SET SYSDUMPCODE(SM0131) SYSDUMP MAXIMUM(1) ADD** to add SM0131 and request one system dump.

SHORT ON STORAGE

Optional (MustGather) data: CICS message log containing either message DFHSM0131 or DFHSM0133.

CICS Internal Trace is generally not required to diagnose a SOS condition. If it is requested by IBM support, ensure the internal trace size is set to a minimum of 4096K. Also, ensure standard level 1 tracing is turned on for all components.

SDAID dump taken at the point of failure.

SHORT ON STORAGE

Diagnostic tips:

•Review the logs and dumps generated at the point of failure. When looking at the dump, use the DFHPD410 formatter with SM=3 to get the storage manager areas.

•Search the CICS support site for known problems using symptoms like the message number and error codes.

•If you find a fixing PTF, see Ordering CICS products and maintenance for the options that are available to order CICS maintenance.

•Gather the documentation and work with the CICS support team to resolve your problem.

Learn more about short on storage:

•CICS storage and the CICS dynamic storage areas

•The dynamic storage areas and associated storage cushions

•Storage stress - How monitored

•SOSSTATUS - CEMT INQUIRE SYSTEM

•Dealing with limit conditions

•Storage waits

•DFHSMxxxx messages

•CICS TS for VSE/ESA Library

SHORT ON STORAGE

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[Multiregion operation (MRO)](#)
[Program check or abend](#)
[Short on storage](#)
[Storage violation](#)   <<<<<<<<
[Terminal hang](#)
[Wait or loop](#)

STORAGE VIOLATION

Problem(Abstract)

You are having a storage violation problem in CICS Transaction Server for VSE/ESA (CICS TS) V1.1.1 on z/VSE. You would like to know what documentation you must collect (MustGather) so that the CICS Support team can diagnose your problem. If you gather this documentation before contacting support it will expedite the troubleshooting process, and save you time.

STORAGE VIOLATION

CICS message log that contains the messages DFHSM0102 or DFHSM0103 indicating that CICS has detected a storage violation.

VSE system dump taken automatically when CICS generates messages DFHSM0102 and DFHSM0103. Dumps can be suppressed if using SIT parameter DUMP=NO or the system dump table with the system dump codes SM0102 or SM0103.

CICS Internal Trace should be running within the CICS region. Ensure the internal trace size is set to a minimum of 4096K. Also, ensure standard level 1 tracing is turned on for all components.

STORAGE VIOLATION

Optional (MustGather) data: CICS Auxiliary Trace when attempting to identify the transaction causing the storage overlay and it is necessary to keep a record of system actions over a long period of time.

VSE system dump for message DFHSM0103 resulting from using the storage checker. Storage chain checking can be turned on by using the CHKSTSK or CHKSTRM SIT parameters or transaction CSFE DEBUG with on of the following options:

CHKSTSK=CURRENT validates SCZs for task storage

CHKSTRM=CURRENT validates SAAs

SDAID dump taken at the point of failure.

CICS transaction dump taken at the point of failure. Usually a VSE system dump will be required, but if you have a transaction dump and internal trace was active, the transaction dump might be useful.

STORAGE VIOLATION

Diagnostic tips:

•Review the logs and dumps generated at the point of failure. When looking at the dump, use the DFHPD410 formatter with TR=3 to see the internal trace table and AP=3 to see the TCAs and user storage. You might also need TCP=3 to see the terminal-related areas; TCP=3 can generate a significant amount of output if you have a lot of terminals in the region.

•Search the CICS support site for known problems using symptoms like the message number and error codes.

•If you find a fixing PTF, see Ordering CICS products and maintenance for the options that are available to order CICS maintenance.

•Gather the documentation and work with the CICS support team to resolve your problem.

Learn more about storage violations:

•Avoiding storage violations
•Dealing with storage violations
•What happens when CICS detects a storage violation
•DFHSMxxxx messages
•CICS TS for VSE/ESA Library

STORAGE VIOLATION

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File control wait

Multiregion operation (MRO)

Program check or abend

Short on storage

Storage violation

Terminal hang   <<<<<<<<<<<<

Wait or loop

TERMINAL HANG

Problem(Abstract)
You are having a terminal hang problem in CICS Transaction Server for VSE/ESA (CICS TS) V1.1.1 on z/VSE. You would like to know what documentation you must collect (MustGather) so that the CICS Support team can diagnose your problem. If you gather this documentation before contacting support it will expedite the troubleshooting process, and save you time.

TERMINAL HANG

Required (MustGather) data:

CICS message log that contains DFHZCxxxx messages for the terminal. Messages are written to the console or the CSNE transient data destination. If you have a terminal involved in transaction routing, support will need the CICS message log for both the terminal owning region (TOR) and the application owning region (AOR).

VSE system dump taken after the terminal is hung so control blocks such as the RPL and TCTTE can be analyzed. If you have a terminal involved in transaction routing, support will need a VSE system dump of both the TOR and AOR.

CICS Internal Trace that is included in the VSE system dump when tracing is active. The trace should be at least 4096K and level 1 tracing should be on for all CICS components. If this problem is re-creatable, change the TC component to 1-2.

TERMINAL HANG

Optional (MustGather) data: CICS Auxiliary Trace when attempting to identify a transaction causing the terminal to hang and it is necessary to keep a record of system actions over a long period of time.

If the hang is occurring at bind time (you never see the CICS good morning message), a VTAM Buffer Trace of the logon applid is needed to see the bind flow along with a ZCP trace.

If there is a specific DFHZCxxxx message that appears to be the cause of the hang, you can add the message to the CICS system dump table. For example:

CEMT SET SYSDUMPCODE(ZC2403) MAXIMUM(1) ADD

SDAID dump taken after the terminal is hung.

TERMINAL HANG

Diagnostic tips:

•Review the logs and dumps generated at the point of failure. When looking at the dump, use the DFHPD410 formatter with TCP=3 to get the terminal-related areas; TCP=3 can generate a significant amount of output if you have a lot of terminals in the region.

•Search the CICS support site for known problems using symptoms like the message number and error codes.

•If you find a fixing PTF, see Ordering CICS products and maintenance for the options that are available to order CICS maintenance.

•Gather the documentation and work with the CICS support team to resolve your problem.

Learn more about terminal hangs:

•Investigating terminal waits

•DFHZCxxxx messages

•CICS TS for VSE/ESA Library

TERMINAL HANG

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[File control wait](#)

[Multiregion operation (MRO)](#)

[Program check or abend](#)

[Short on storage](#)

[Storage violation](#)

[Terminal hang](#)

[Wait or loop](#)   <<<<<<<<<<<<<<

WAIT OR LOOP

Problem(Abstract)

You are having a wait or loop problem in CICS Transaction Server for VSE/ESA (CICS TS) V1.1.1 on z/VSE. You would like to know what documentation you must collect (MustGather) so that the CICS Support team can diagnose your problem. If you gather this documentation before contacting support it will expedite the troubleshooting process, and save you time.

WAIT OR LOOP

Symptom

Typically, when a wait or hang occurs your region is not getting any CPU. The following are some characteristic symptoms of loops:

The 'system busy' symbol is permanently displayed in the operator information area of a display unit, or stays displayed for long periods.

The transaction abends with abend code AICA.

CPU usage is very high, perhaps approaching 100%, yet some tasks stay suspended or ready, but not running, for a long time.

WAIT OR LOOP

Cause

A wait or hang can occur for many different reasons. For example, the region could be at the MXT limit in which case no new tasks can be attached or the region could be waiting for an ECB to be posted.

A loop is the repeated execution of some code. In some cases, a loop might at first be diagnosed as a wait or a performance problem, because the looping task competes for system resources with other tasks that are not involved in the loop.

The symptoms of a CICS loop or a CICS wait can be due to a loop in a higher priority partition that is preventing CICS from being dispatched even though it is dispatchable. CICS is dispatchable when the VSE STATUS command shows READY TO RUN for one or more CICS subtasks. The z/VSE Interactive Interface System Activity Display can be used to check the actual CPU utilization within the affected CICS partition, as documented below.

WAIT OR LOOP

Required (MustGather) data:

If possible, CICS Internal Trace with the trace table size of at least 4096K and level 1 tracing for all CICS components.

For a loop:

   Obtain the output from several uses of the VSE **STATUS** and **STATUS *Fa*** commands (where ***Fa*** is the CICS partition) and from one **PRTY** command. Enter the VSE command **DEBUG ON, 999K** to activate the VSE trace table.

   Wait for a few seconds to allow VSE to log some data, then enter **DEBUG OFF** and **DEBUG ON** to make VSE create a copy of the trace data.

Request a VSE system dump of the CICS partition. Use the following VSE commands to capture the trace and the dump (where ***Fa*** is the CICS partition that you want to dump and ***cuu*** is the tape address where the dump will go):

   SUSPEND *Fa* (temporarily take the partition out of the dispatch queue to prevent inconsistencies in the dump)

   DUMP *Fa*,0-7FFFFFFF,*cuu* (include the partition, SUP, and SVA in a single dump)

   RESUME *Fa* (note that SUSPEND Fa and RESUME Fa are undocumented AR commands)

WAIT OR LOOP

For a loop, enter the VSE command **DEBUG END** to deactivate the VSE trace table after requesting the VSE system dump.

Note that without the use of SUSPEND and RESUME the dump might not be usable by CICS Support.

Note: The tape drive at address cuu can be a real tape drive or a z/VSE Virtual Tape drive that has been mapped to a file on a distributed system such as a PC or Linux, but not one that is mapped to a VSAM ESDS. You can send the resultant binary Virtual Tape file, correctly named and suffixed with the .AWS extension, directly to the support team for documentation. The z/VSE Administration and z/VSE System Control Statement manuals for your z/VSE version and release describe how to use Virtual Tapes.

CPU utilization for the CICS region. You can check what the CPU usage is for any VSE job by using the DISPLAY SYSTEM ACTIVITY screen of the z/VSE Interactive Interface. Press **PF5** to display the percentage of CPU time used up by dynamic partitions (the time shown is summarized on the class level). Press **PF6** to display a summary chart showing the CPU and partition activity.

WAIT OR LOOP

Optional (MustGather) data: CICS message log containing the last message written by CICS and the time the message was written.

If you are able to recreate the problem, consider using [CICS Auxiliary Trace](#) in combination with the VSE system dump. The dump is unlikely to tell you anything about system activity in the period leading up to the wait or loop. This is because the trace table will probably wrap before you have had a chance to respond.

A simple loop trace can be obtained by displaying the PSW addresses that are used within the looping CICS subtask.

Enter the VSE command **STATUS *Fa*** (where ***Fa*** is the CICS partition), for example:

WAIT OR LOOP

STATUS G1

AR 0015 S63-G1 EVA10MST 82 WAITING FOR I/O, . . .
AR 0015   TCB=0035934C TIB=003592D0 SAV=006052A0
AR 0015 S64-G1 DFHEVID2 82 WAITING FOR I/O, . . .
AR 0015   TCB=0035961C TIB=003595A0 SAV=002CFD80
AR 0015 S61-G1 DFHEVID1 82 WAITING FOR I/O, . . .
AR 0015   TCB=00348BBC TIB=00348B40 SAV=002CFC00
AR 0015 S62-G1 DFHEVID1 83 **READY TO RUN**
AR 0015   TCB=0035907C TIB=00359000 **SAV=002CFC80**
AR 0015 S67-G1 DFHEVID1 82 WAITING FOR I/O, . . .
AR 0015   TCB=0036307C TIB=00363000 SAV=002CFF00
AR 0015 S66-G1 DFHEVID1 82 WAITING FOR I/O, . . .
AR 0015   TCB=00359BBC TIB=00359B40 SAV=002CFE80
AR 0015 S68-G1 DFHEVID0 82 WAITING FOR I/O, . . .
AR 0015   TCB=0036334C TIB=003632D0 SAV=002CFF80
AR 0015 S65-G1 DFHSKTSK 82 WAITING FOR I/O, . . .
AR 0015   TCB=003598EC TIB=00359870 SAV=002CFE00
AR 0015 M2D G1 COMSZCCA 82 WAITING FOR I/O, . . .
AR 0015   TCB=003522E8 TIB=00352268 SAV=00600000

AR 0015   SCB=00352000 PCB=00352088 COM=003524F0

WAIT OR LOOP

This displays all the task activity within CICS. The last task (M2D) is the main task, it is always the lowest priority and is not normally the one that causes the loop. The previous task S65 is always the highest priority, and the priority then decreases so that task S63 is the lowest. The looping task would normally be the last one that consistently shows READY TO RUN (dispatchable), in this case that is task S62.

WAIT OR LOOP

a.To see the PSW address, take the SAV= address and use it in the **SHOW *Fa,xxxxxxx*** command, for example:

SHOW G1,002CFC80

AR 0015   DATA FOUND AT 002CFC80

V002CFC80 C4C6C8C5 E5C9C4F1 07DD1000 **82C37EAC**

The PSW address is 02C37EAC (remove the high-order 8 bit).
b.Repeat the **SHOW *Fa,xxxxxxx*** command as many times as possible.
c.The output can be printed by running the VSE utility PRINTLOG.

WAIT OR LOOP

•For reference the tasks shown above are:

1. EVA10MST – console subtask
2. DFHEVID2 – auxiliary trace subtask
3. DFHEVID1 #1 – RO subtask
4. DFHEVID1 #2 – QR subtask (most CICS activity runs here)
5. DFHEVID1 #3 – SL subtask
6. DFHEVID1 #4 – SO subtask
7. DFHEVID0 – JCP subtask
8. DFHSKTSK – File OPEN/CLOSE subtask
9. Mxx is the main task, it is typically inactive

•SDAID Trace for a suspected looping condition to determine where (in IBM or user code) the loop is occurring. Specifically, an SDAID Branch Trace that includes the address range of the CICS partition and the SVA (because some CICS modules run in the SVA). An event record will be made for every branch taken within the area specified.

WAIT OR LOOP

A quick way to activate SDAID instead of submitting a job is to use a PAUSE to run a standard SDAID JCL procedure. For example, use job PAUSEBG (where *Fa* is the CICS partition):

BG-0000 // PAUSE

0 // EXEC PROC=SDBRANCH,AREA=*Fa*,OUTPUT=GREG,T=*cuu*

BG 0000 4C44I ENTER 'STARTSD' ATTENTION COMMAND TO ACTIVATE SDAID

WAIT OR LOOP

Diagnostic tips:

•Review the logs and dumps generated at the point of failure. For a wait or hang, use DFHPD410 dump formatter to format domains KE=3, TR=3, DS=1, LM=3. For a loop, format domains KE=3, TR=3, AP=3.

•Search the CICS support site for known problems using symptoms like the message number and error codes.

•If you find a fixing PTF, see Ordering CICS products and maintenance for the options that are available to order CICS maintenance.

•Gather the documentation and work with the CICS support team to resolve your problem.

Learn more about waits and loops:

•Dealing with waits

•Dealing with loops

•The resources that tasks in a CICS system can wait on

•KC_ENQ suspend QEA chain diagnostics and finding the resource owner

WAIT OR LOOP

See [Exchanging information with IBM Technical Support](#) for FTP and email instructions using the IBM Enhanced Customer Data Repository (ECuRep).

Go to the [Service Request page](#) to open or update a problem. If you have a [SoftwareXcel enterprise edition for zSeries](#) contract, you can also ask a non-defect installation and usage questions.

Note: Always update your Service Request (problem record) to indicate that data has been sent.

If you need to speak to an IBM technical support representative call your [country representative](#). If you need to speak to an IBM technical support representative in the US, call 1-800-IBM-SERV.

GOTCHAS

1. AFTER EDITING A CICS REXX PROGRAM THE FILE COMMAND TO STORE CAUSES A DFHSM0102 STORAGE VIOLATION (CODE X'0D11')   PM56395

2. iCONTAINS KESTK24E STORAGE FOR DFHTIEM   PM52132

3. DFHSO0002 (CODE X'0211') DFHSO0102 (CODE X'0263') FOLLOWED BY DFHSO0001 (CODE 0C4/AKEA) AT X'57EE' IN DFHSOCK   PM46674

4. TCPIPS ATTACHSEC IS NOT BEING WRITTEN TO THE GCD, SO IT'S VALUE IS LOST AFTER CICS WARMSTART. COLDSTART IS NEEDED TO RESTORE IT   PM52729

5. 3270 BRIDGE FAILS WITH DFHAP0002 CODE X'2150'   PM44846

6. MSG DFHIR370 RECEIVES RESIDUAL DATA IN THE REASON CODE FIELD PM40425

7. CICS HANGS AT SHUTDOWN WAITING ON SOA_LTE_EMPTY_ECB. PM25851

8. DFHSM0002 CODE X'0D0A' DUE TO DOUBLE FREEMAIN OF TIOA FROM DFHZFRE . TIOA WAS ALREADY FREEMAINED BY DFHZRVS . PM06951

Problem determination and lookup - site information

Support Portal -   The new URL is

http://www.ibm.com/support/entry/portal/Overview/Software/Other_Software/

CICS Fix Lists – Known Problems

Fix lists for CICS/VSE V2.3 and CICS TS for VSE/ESA were created.
Here's the link to the Fixes by version document that links to all the CICS Fix lists:

http://www.ibm.com/support/docview.wss?uid=swg27008833.

SENDING DOCUMENTATION to the Support Center

The biggest headache and problem which has plagued the CICS Level 2
support center from DAY 1 of CICS/TS for VSE has been the inability
to get documentation from our customers.

The Rules that need to be followed exactly are as follows:

1. AR, STANDALONE or SVCDUMP DUMPS and AUXTRACES MUST BE FTPd IN
    RAW STATE and BINARY Mode. This is mandated by our Level 3 support in
    Hursley.

    We have the capability of running Infoana on our machines.

2. Transaction dumps, Listqueue output must be FTPd in ASCII Mode.

SENDING DOCUMENTATION to the Support Center

Please send your CICS/VSE documentation using FTP via the internet.
 1. Connect to our FTP site: ftp.emea.ibm.com (or 192.109.81.7)
    USER: anonymous   PASSWORD: your complete e-mail address
 2.Specify **BINary t**ransfer mode for unformatted hex data (dumps,trace)
    (NOTE: Formatted data should be transferred in ASCII mode)
 3 Place the dataset in the /toibm/vse directory with put command

  Ensure the dataset name conforms to the following naming convention:
  PPPPP.BBB.CCC.DDD.DDD where: PPPPP =PMR #, BBB =Branch #,
  CCC =Country Code (USA=000), DDD.DDD =Short Descriptive Name

 4 When transfer is complete, update the PMR to inform level 2 the doc
  has been transferred and include the name(s) of all files sent.

  EXAMPLE YOUR FTP FILE WOULD BE NAMED:
  55143.000.858.DUMP.untrs

ANY QUESTIONS?