



IBM Software Group

CPSM API requests: Hangs and Time-outs

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Topics

- User Request Processing
 - ▶ What is a MAL?
 - ▶ How they origination
 - ▶ Single System Image (SSI) Processing
- Known problem scenarios
 - ▶ Too much data
 - Warning count
 - ▶ LRT hung on prior command
 - CONA vs CONL
 - ▶ MAS is unresponsive
 - Timeout Processing
- Debugging tips – where to begin
 - ▶ Tools
 - ▶ Sample (CAPTURE) Trace
- Summary

User Request Processing

What is a MAL?

- Method/Message Argument List
 - ▶ Identifies method to be executed

- A program parameter list consisting of 2 parts
 - ▶ MAL prefix - which defines where to run
 - Fixed 64 bytes
 - Specifies time-out limit
 - Points to the MAL
 - ▶ MAL proper – which defines program (method) to run
 - Up to 255 bytes
 - Contains I/O areas and pointers

Shipping a MAL

- When a MAL is shipped
 - ▶ Communications builds an outbound Response List Element
 - MALRL – when sent to a CMAS
 - MASRL – when sent to a MAS
 - ▶ MALRL/MASRL element points to the MAL prefix
 - ▶ MAL prefix points to
 - MAL proper
 - Transport Services Block (TSPblk)
 - TSPblk contains true time-out limit and start time
 - Limit increased for remote Calls.

Sample Control Blocks

MASRL - EYURCMRL

```
0001AED4 C3D4F0F1 00016006 176D6E18 04000000 01010000 C9E8D5E7 D6404040 C3C9C3E2 |CM01..-.._>.....IYNXO CICS|
0001AEF4 D3F24040 00000000 00000000 16E886D8 00000000 00000000 |L2 .....YfQ.....|
```

Mal Prefix - EYURXLMP

```
176D6E18 176D6EA8 176D6E58 00000000 00000000 C3C9C3E2 D3F24040 | .->y._>.....CICSL2 |
176D6E30 C9E8D5E7 D6404040 00005DC0 00000000 00400200 00020000 00000000 16E886D8 |IYNXO ..){.....YfQ|
176D6E50 1754804C 00000000 |...<....|
```

MAL Proper - EYURXLMF

```
176D6E58 004D0D00 001E0001 C3D4F0F1 FB000000 00000000 01000000 | .(.....CM01.....|
176D6E70 D4D6E240 D5D8E3D2 00000000 5C404040 803236B5 00001BC0 00000000 00000000 |MOS NQTK....* .....{.....|
```

TspBlk - EYURCTSB

```
16E886D8 03606EC5 E8E4C3E3 C5E8E4D9 C3E3E2C2 08000600 00000000 | .->EYUCTEYURCTSB.....|
16E886F0 CA20820A CE1A33BC 00000000 00011940 1754804C 04000000 00000000 00000000 |..b.....<.....|
16E88710 00000000 0301004D 01000000 C3D4F0F1 00016006 00000000 C9E8D5E7 C3D4F0F1 |.....(....CM01..-.....IYNXCM01|
16E88730 C3C9C3E2 E4E2C5D9 1F860000 C1D7C9E4 C9E8D5E7 C3D4F0F1 010001C9 E8D5E7D6 |CICSUSER.f..APIUIYNXCM01...IYNXO|
16E88750 404040C3 C9C3E2D3 F24040C3 D4F0F100 01600600 00000000 00000000 00000000 | CICSL2 CM01..-.....|
16E88770 00000000 00000000 00000000 00000189 00000000 176D6E18 00000000 16E88A38 |.....i....._>.....Y..|
```



User request – how do they originate

- RTA – not an API program
- CPSM API program (CICS or Non-CICS program)
 - ▶ Issues API Call
- WUI
 - ▶ CPSM API program (CICS program)
- CMCI (CPSM 4.1 and above)
 - ▶ CPSM API program (CICS program)
 - ▶ When a user makes a request
 - A URL is shipped to the WUI server where it is parsed
 - This request is turned into a CPSM API Call
- Explorer
 - ▶ WUI
 - ▶ CMCI
 - ▶ CPSM API program

Remember: The WUI, CMCI and Explorer are just an API program

User request processing - RTA

- At time of RTADEF install
 - ▶ EVALDEF delivered to origin CMAS
 - For MAS Resource Monitoring (MRM) requests
 - CMAS that MAS is connected to is origin CMAS
 - For Analysis Point Monitoring (APM) requests
 - Analysis Point (AP) CMAS is origin CMAS
 - As specified in EYUDREP definitions
 - EVALDEF turned into a MAL
- At time of EVALDEF interval
 - ▶ PEAD task is started
 - Handles all EVALDEFs for a specific time interval for a specific scope
 - ▶ Retrieves MAL for EVALDEF
 - ▶ MAL delivered to SSI
 - ▶ Completed MAL processed
 - EVALDEF Status set
 - No table conversion required
 - ▶ Processes next EVALDEF for time interval and scope

User request processing – API program

- API program issues command that drives SSI processing
- Command descriptor delivered to API CONNECT CMAS
 - ▶ Origin CMAS
 - ▶ Only for subset of commands
 - GET PERFORM CREATE REMOVE
 - UPDATE REFRESH SET
 - ▶ Runs under XDNR task (started or reused)
- Processing based upon where API program runs
 - ▶ Local MAS program
 - Must be using EYU9AMSI – API MAS stub
 - ▶ All other programs (including REXX)
 - Uses EYU9ABSI – Batch/TSO stub

User request processing – API program (cont)

- Local MAS program
 - ▶ Runs under user designated CICS task
 - ie. COVA for WUI, CWWU for CMCI/SMSS
 - ▶ API Command triggers call to EYU9AMSI
 - ▶ EYU9AMSI calls API TRUE EYU9XLAP
 - ▶ EYU9XLAP calls XDER - the MAS API Command Router
 - ▶ XDER builds a command descriptor
 - Calls XDE0 – to analyze API request to see how to handle it
 - Calls XDE1 – to process the API request
 - Calls CAMS - to remotely execute XDNA in CMAS to which MAS is connected
 - Calls XSWX - to wait for results
 - ▶ XDNA calls XDNR task in connected CMAS
 - to route the command descriptor to the proper method

User request processing – API program (cont)

- All other programs
 - ▶ Runs under an MVS TCB in user specified address space
 - ▶ Command triggers call to EYU9ABSI
 - ▶ EYU9ABSI calls ABM0 to analyze the request
 - ▶ ABM0 builds a command descriptor and Calls specific processor
 - ▶ Processor calls ABI0
 - Calls ABM4
 - to POST XDNE LRT in the CMAS to which program connects
 - to WAIT for results
 - ▶ XDNE starts XDNR task in connected CMAS
 - to perform SSI processing

SSI processing – Origin CMAS

- Once a request gets to XDNR in the CMAS
 - ▶ XDNR calls specific command processor and that request goes into a table
 - ie. GET, PERFORM OBJECT, etc
 - XDP1 - Get
 - XDP3 - Perform Object
 - XDP4 - Perform Set
 - Each specific command processor calls XDP1 to get data in result set
 - ▶ XDP1
 - Validates the parameters
 - Calls MOMB - to build the MAL
 - Calls XLML – to inquire on the MAL
 - Calls MOM2 – to complete the MAL
 - Looks in MOSD (in EYUYnnnn) to build the table
 - where nnnn is 0001 for CICSRRGN, 0002 is CICSDDSA, etc
 - Returns address of MAL to XDP1

SSI processing – Origin CMAS

- XDP1 calls MOMS – to send the MALs
 - ▶ Calls XLSI – to oversee the MAL execution
 - Calls XLSR – to replicate MAL for each target
 - Calls TMRL – Topology lookup
 - Determines targets for MALs based on context and scope
 - Local targets – directly connected MASs
 - Remote targets – connected MASs of sibling CMASs
 - Copies MAL for each target
 - Returns to XLSI

SSI processing – Origin CMAS

- XLSI Calls XLSD – to deliver the MALs to each target
 - ▶ Time out elements created for each delivery
 - ▶ Then.....
 - For connected CMASs
 - Calls CAMS to send MAL to other CMASs
 - Each receiving CMAS will do local SSI processing
 - For directly connected MASs
 - Calls CRCK for security – for frontend Call
 - Checks for Actions and Inquires for access
 - Calls CAMM to send MAL to directly connected MASs, or
 - To run locally (in the MAS itself)
 - Calls XLTR to deliver the MAL locally
 - ▶ Calls XSWX to wait for CMAS and MAS MALs to complete
 - When POSTed
 - Consolidate completed MALs
 - Perform table conversion
 - Returns MAL to its Caller XLSI

SSI processing – Origin CMAS

- Control returns to XDP1 after execution
- XDP1 returns to XDNR
- XDNR awakens the waiter
 - ▶ Local MAS program
 - Calls CAMM to ship XDNP request to MAS
 - XDNP POSTs waiting XDE1
 - ▶ All other programs
 - POSTs waiting ABM4, which return to ABI0

SSI processing – Sibling CMAS

- Receives MAL from origin CMAS
 - ▶ CMAS-CMAS Time out element created
 - ▶ Local inbound MALRL is built
 - ▶ XLST task is started
 - ▶ XLST calls XLSI – for SSI
 - MALRL updated with XLST task number
 - XLSI
 - Calls XLSR – to replicate locally only for each target
 - Calls XLSD – to deliver MAL locally only
 - CMAS-MAS Time out element created for each delivery
 - Calls XSWX to wait for MAS MALs to complete
 - When POSTed
 - Consolidate completed MALs
 - Perform table conversion
 - ▶ XLST calls CAMR to return results to origin CMAS

SSI processing – MAS

- When a MAL is received from connected CMAS
 - ▶ Communications determines where to run it
 - Usually POST long running task
 - CONL or CONA – method NLRT
 - depending on MASALTRTx
 - Occasionally start transient task – method EYU9XLOP
 - COIR – for RTA if EVALDEF states 'Separate Task'=YES
 - COIE – for requests that might result in waits
 - COHT – for HTASK requests
 - ▶ Request is processed
 - Through CICS API/SPI commands
 - Fill record queue for GET or REFRESH requests
 - Set completion status in MAL or namelist
 - ▶ Return results to connected CMAS through CAMR Call
 - By either NLRT or EYU9XLOP

Known problem scenarios

Problem Scenarios

- Requesting too much data
 - ▶ Require use of WUI filters before requesting data
 - At server level – GLOBALPREFILTER(YES) EYUWUI parm
 - At user group level – user group editor "Force filter confirmation" setting
 - ▶ Disallow use of WUI "Automatic refresh"
 - AUTOREFRESH(NO) EYUWUI parm
 - ▶ Specify TASK/TASKRMI "INCL_QUEUED(NO)" parameter
 - Eliminates collection of tasks queued for MXT and TRANCLASS
 - Available for EVALDEFs also
 - ▶ Use WUI, CMCI and API record warning counts
 - WUI record warning count
 - At server level – DEFAULTWARNCNT(nnnn) EYUWUI parm
 - At user group level – user group editor "Warning record count" setting
 - Prohibit override of default – RESOURCELIMIT(FAIL) EYUWUI parm
 - CMCI record warning counts
 - At WUI server level - DEFAULTWARNCNT(nnnn) - can't override
 - API at program's discretion

Problem Scenarios

- LRT hung on prior CICS API/SPI command
 - ▶ Alternate MAS LRTs can be used - CONA tasks
 - ▶ Process incoming requests only
 - CONL still performs additional processing
 - ▶ If hung up another can be used
 - ▶ Task priority can be set
 - ▶ Uses MASALTLRT* EYUPARMs
 - MASALTLRTCNT – number of alternate LRTs (ALRT) to use
 - MASALTLRTTIM – ALRT busy time
 - MASALTLRTPRI – ALRT priority
 - ▶ Usage information in MAS joblog messages at shutdown
 - EYUNL0911I Number of active alternate LRTs
 - EYUNL0912I Maximum concurrently busy alternate LRTs
 - EYUNL0913I Number of times all alternate LRTs were busy
 - ▶ Remember if MAS is CPSM WLM target region (AOR), this will increase standing task count and affect route selection

Non-responsive MAS warnings

- A non-responsive MAS is...
 - ▶ a MAS that has not processed a request in the past 60 seconds
 - ▶ a MAS that has not returned a request in the past 60 seconds.

- Joblog/Syslog messages issued by CMAS MAS connected to
 - ▶ EYUCS0207W issued when MAS is determined to be non-responsive
 - ▶ EYUCS0208I issued when MAS is determined to be responsive again

- Exception trace record written
 - ▶ Debug text = NR_MAS – trace point ID = 39

Time-out processing

- Only performed in CMAS
- Managed by long running task CSLT
 - ▶ Transaction LSRT – method CSLT
 - ▶ Awakes every 5 minutes
 - ▶ Runs through every MALRL and MASRL elements
 - Times out requests that exceed time limit
 - Based upon values in TSPblk
 - Exception trace record written
 - Debug text = TIMEOUT – trace point ID = 16
 - If a task is associated with the request
 - Task POSTed with error or FORCEPURGE
 - If no task is associated with the request
 - Request is marked as “completed” with error codes

Time-out processing

- Original incoming MAL does not have MALRL/MASRL
 - ▶ So it is never timed out
- It is waiting for all shipped MALs to complete
 - ▶ These do have MALRL/MASRL elements
 - They can be timed out
- Combination of normal completes and time-out “completes” of shipped MALs causes the original MAL to complete
- MALs that run in originating CMAS only cannot be timed out

SSI Time out parameters

- Default timeout – better suited for internal processes
 - ▶ Minimum timeout value is 4 minutes
 - ▶ Maximum timeout value is ???? minutes
 - ▶ Normally between 4 to 9 minutes
 - Time out time – 4 minutes
 - Polling interval – 5 minutes
 - ▶ Additional time if a sibling CMAS is non-responsive
 - 12 to 17 minutes if directly connected
 - Additional 8 minutes added for each indirect path
 - ▶ Parameters to control user request time out
 - TOBATCHREQ - timeout value for BATCH API's
 - TOONLINEREQ - timeout value for API's from WUI/CMCI and API pgms
 - TOPOLLINT - govern how often the values are checked.
 - These parameters **MUST** be the same in ALL of the CMAS's in PLEX

SSI Time out parameter - cont

- Set realistic values for TOxxxxxREQ parms
 - ▶ Test worse case scenario
 - ▶ Measure with KNL level 30 (PRE_SEND to POSTSEND trace)
- Time out time dependent on TOxxxxxREQ parms in origin CMAS
 - ▶ Travels with MAL to sibling CMASs
 - ▶ Allow different CMASs to have different time out times
- Polling time set at CMAS initialization
 - ▶ Does not travel with MAL to sibling CMASs
 - ▶ Each CMAS should specify same TOPOLLINT value
 - ▶ Set polling time less than lower TOxxxxxREQ parm
 - Will help ensure origin CMAS does not time out sibling CMAS before sibling CMAS times out its MASs

Debugging Tips

Tools

- COD0 transaction
 - ▶ LIST TASK xxx - display CPSM tasks, showing method flow
 - ▶ LIST COM - display MALRL/MASRL elements
 - ▶ TRACE ON RESET / TRACE OFF STOP - start/stop auxtrace
 - ▶ CAPTURE - print output of an API request
 - ▶ START XZSD - requests SVC dumps
 - ▶ START CPLC - determine path between 2 CMASs
 - Specify target CMAS name and * for DLST_GDS
 - Specify “dump dlst_gds” in resulting display
- CODB transaction
 - ▶ Displays storage
 - ▶ Usually driven from COD0 by DUMP command
- EYU9XENF utility
 - ▶ List connected regions (CMASs, MASs, API address space)

Debugging a hang

- Determine originating CMAS
 - ▶ Batch API
 - Issue EYU9XENF utility to find API job and the CMAS to which it connected
 - ▶ Local MAS API
 - Determine hanging transaction and MAS
 - Use WUI/Explorer TASK view to
 - Determine MAS's CMAS
 - WUI MAS view
 - Explorer SM Administration > Managed regions view
 - ▶ WUI/CICS Explorer
 - Determine WUI server name
 - Match host name and port number with EYUWUI parms
 - Host name = TCPIPHOSTNAME parm
 - Port = TCPIPPORT or CMCIPORT parm
 - Determine WUI server's CMAS
 - WUI MAS view
 - Explorer SM Administration > Managed regions view

Debugging a hang

- Once you know the origination CMAS
 - 1) Logon to that CMAS
 - 2) Enter COD0 transaction
 - 3) Issue LIST TASK
 - Verify an XLST or XDNR task in XSWX wait from XLSD
 - 4) Issue LIST COMM command (hit enter a few times)
 - 5) If Outbound entry to a MAS
 - Check the MAS for sickness
 - 6) If Outbound entry to a CMAS
 - Logon to that CMAS
 - Issue LIST COMM
 - Check for inbound entry matching outbound entry
 - Verify SysId and Sequence match
 - Go to step 3 for this CMAS
 - Task will be an XLST

Dump walkthru

- Environment : One LPAR consisting of
 - a CMAS – IYNXCM01
 - a WUI – IYNXWU01
 - 4 MASs: IYNXJ IYNXO IYNX3 IYNX9
- Two users are signed on via the CICS Explorer
 - Each has submitted a view request
- Problem: The request results are never returned
- Documentation: Console dump of CMAS, WUI and MAS IYNXO

Dump walkthrough – WUI

- CICS KE shows 2 CWWU task in the region

```
00A0 14D99100 Not Running 13CDB800 02781 CWWU 1A0C4500 135DAFF8
00A1 14D99700 Not Running 13CDA800 02783 CWWU 1A0C3980 135DAFF8
```

- CPSM TASK verbexit shows the method flow for each task

Kernel linkage summary for component - DAT / Data Definition

Task	Meth	Load-Pt	OPB	OSSB	Stack	Mal	MODB	MOEB
2783	XLAP	000B5228	16F30068	16F301F0	16F30218	00000000	15261E60	14EC3140
2783	XDER	16007190	16F30068	16F301F0	16F303A0	16F2FD20	15267360	152E7000
2783	XDE0	160814C0	16F30068	16F301F0	16F30820	16F30758	15267360	152E7000
2783	XDE1	16082068	16F30068	16F301F0	16F30BB8	16F30960	15267360	152E7000
2783	XSWX	15574FE8	16F30068	16F301F0	16F30F10	16F30EE0	15265160	0006C040
2781	XLAP	000B5228	16AEC5B8	16AEC740	16AEC768	00000000	15261E60	14EC3140
2781	XDER	16007190	16AEC5B8	16AEC740	16AEC8F0	16AEC270	15267360	152E7000
2781	XDE0	160814C0	16AEC5B8	16AEC740	16AEC70	16AEC8A8	15267360	152E7000
2781	XDE1	16082068	16AEC5B8	16AEC740	16AED108	16AEC8E0	15267360	152E7000
2781	XSWX	15574FE8	16AEC5B8	16AEC740	16AED460	16AED430	15265160	0006C040

- CPSM COM verbexit shows any outstanding MALs

CMRL: 00553A0C MAS1CM01 - MAS Response Element

```
+0000 C3D4F0F1 80000003 16A5001C 00000000 02010000 C9E8D5E7 E6E4F0F1 00000000 *CM01.....v.....IYNXWU01....*
+0020 00000000 00000000 00000000 16A5A218 00000000 00000000 *.....vs.....*
```

- For a MAS, first CMRL in chain is for heartbeat - it never goes away
 - shows time MAS got initialized and that heartbeat request started

Dump walkthrough – WUI

- CICS WU domain shows currently running and completed API requests

==WU: REQUEST LIST SUMMARY REPORT

ADDRESS	TASK	HTTPMETH	CONNTYPE	RESOURCE	CSD?	CONTEXT	SCOPE	CACHETOKEN	ACTION	NODISCARD	SUMMONLY
16DE6700	02783	GET	LMAS	LIBDEF	NO	CICSL2	IYNXO		YES	YES
16AD7700	02781	GET	LMAS	TASK	NO	CICSL2	CICSL2		YES	YES

==WU: CACHED RESULT LIST SUMMARY REPORT

ADDRESS	CACHETOKEN	LASTUSE	TASK	USERID	CONTEXT	SCOPE	RESOURCE	RECORDS	READERS	DEL?
** DFHPD0106	An error has occurred while formatting WURSMHDR.									

==WU: ANCHOR CONTROL BLOCK REPORT

WUSS 13C16810 WU Anchor

0000	002C6EC4	C6C8E6E4	E2E24040	40404040	00000048	0010335C	14A29F80	1A058D10	*..>DFHWUSS*.s.....*
0020	16DE6700	40010100	00000000						*.....	*

Dump walkthrough – WUI

- and their request block

==WU: REQUEST LIST CONTROL BLOCK REPORT

WUIPGREQ 16DE6700 WU Request Block

```

0000 6EE6E4C9 D7C76DD9 C5D8E4C5 E2E34040 C9C2D46D C3C9C3E2 6DC5A797 93969985 *>WUIPG_REQUEST IBM_CICS_Explore*
0020 9961F14B F14BF04B F2F0F1F1 F1F1F0F3 F1F7F4F3 404DE689 958496A6 A240E7D7 *r/1.1.0.201111031743 (Windows XP*
0040 5D404040 40404040 40404040 40404040 00000000 16AD7700 0002783C C3C9C3E2 *) .....CICS*
0060 E4E2C5D9 16F29402 00000015 D3C9C2C4 C5C64040 0000C3C9 C3E2D3F2 4040C9E8 *USER.2m....LIBDEF ..CICSL2 IY*
0080 D5E7D640 40400000 00000000 00000000 00000000 16DE6511 00000022 00000000 *NXO .....*
00A0 00000000 16DE65FB 00000032 00000000 00000000 16AE9128 0000000C 00000000 * .....j.....*
00C0 00000000 00000000 00000000 00000000 00000000 16DE6FE8 00000000 00000000 * .....?Y.....*
00E0 40404040 40404040 40404040 40404040 00000400 00000000 00000000 00000000 * .....*
0100 00000000 00000000 00000000 40404040 40404040 40404040 40404040 40409000 * ..... ..*
0120 40404040 40404040 00000000 40404040 40404040 40404040 40404040 40404000 * .....*
0140 40404040 40404040 00000000 00000000 00000000 40404040 40404040 40404040 * .....*
0160 40404040 16DE6F88 0000C000 1F870001 00000000 00000000 15DC8200 15DE4300 * ..?h..{.g.....b.....*
0180 155F5000 16DE6888 *.-&....h *
```

WUIPGREQ 16AD7700 WU Request Block

```

0000 6EE6E4C9 D7C76DD9 C5D8E4C5 E2E34040 C9C2D46D C3C9C3E2 6DC5A797 93969985 *>WUIPG_REQUEST IBM_CICS_Explore*
0020 9961F14B F14BF1F0 F24BF2F0 F1F2F0F8 F1F4F1F7 F3F6404D E6899584 96A6A240 *r/1.1.102.201208141736 (Windows *
0040 E7D75D40 40404040 40404040 40404040 16DE6700 00000000 0002781C C3C9C3E2 *XP) .....CICS*
0060 E4E2C5D9 16ADBF22 00000008 E3C1E2D2 40404040 0000C3C9 C3E2D3F2 4040C3C9 *USER.....TASK ..CICSL2 CI*
0080 C3E2D3F2 40400000 00000000 00000000 00000000 16AD7511 0000000F 00000000 *CSL2 .....*
00A0 00000000 16AD75FB 0000001C 00000000 00000000 00000000 00000000 00000000 * .....*
00C0 00000000 00000000 00000000 00000000 00000000 16AD7FE8 00000000 00000000 * ..... "Y.....*
00E0 40404040 40404040 40404040 40404040 00000400 00000000 00000000 00000000 * .....*
0100 00000000 00000000 00000000 40404040 40404040 40404040 40404040 40409000 * ..... ..*
0120 40404040 40404040 00000000 40404040 40404040 40404040 40404040 40404000 * .....*
0140 40404040 40404040 00000000 00000000 00000000 40404040 40404040 40404040 * .....*
0160 40404040 16AD7F88 0000C000 1F860000 00000000 00000000 15DC8200 15DE4300 * .."h..{.f.....b.....*
0180 155F5000 16AD7888 *.-&....h *
```

Dump walkthru – origin CMAS

- CPSM TASK verbexit – look for XDNR task waiting in XSWX

Kernel linkage summary for component - DAT / Data Definition

Task	Meth	Load-Pt	OPB	OSSB	Stack	Mal	MODB	MOEB
22348	XLOP	000B2E28	176E15B8	176E1740	176E1768	00000000	157D4E60	153CF140
22348	XDNR	1666E940	176E15B8	176E1740	176E18B0	175C9EEC	157DA360	16B7A060
22348	XDP1	16608950	176E15B8	176E1740	176E23B8	176E2270	157DA360	16B7A060
22348	MOMS	166B6040	176E15B8	176E1740	176E2C78	176E2A68	157DA360	16B7A060
22348	XLSI	15A6E9C8	176E15B8	176E1740	176E3668	176E3388	157D4E60	153CF140
22348	XLSD	15A6C3B8	176E15B8	176E1740	176E3E28	176E39F0	157D4E60	153CF140
22348	XSWX	15AB6C00	176E15B8	16B04000	16B04170	176E45D0	157D8160	0006B040
22346	XLOP	000B2E28	176D2BE8	176D2D70	176D2D98	00000000	157D4E60	153CF140
22346	XDNR	1666E940	176D2BE8	176D2D70	176D2EE0	175C951C	157DA360	16B7A060
22346	XDP1	16608950	176D2BE8	176D2D70	176D39E8	176D38A0	157DA360	16B7A060
22346	MOMS	166B6040	176D2BE8	176D2D70	176D42A8	176D4098	157DA360	16B7A060
22346	XLSI	15A6E9C8	176D2BE8	176D2D70	176D4C98	176D49B8	157D4E60	153CF140
22346	XLSD	15A6C3B8	176D2BE8	176D2D70	176D5458	176D5020	157D4E60	153CF140
22346	XSWX	15AB6C00	176D2BE8	16B08000	16B08170	176D5C00	157D8160	0006B040

- CICS KE verbexit

0132	151FD100	Not Running	13CE8800	22348	XDNR	1A33EE00	135E8FF8
0135	1520E700	Not Running	13CE9800	22346	XDNR	1A33EB00	135E8FF8

Dump walkthrough – origin CMAS

- CPSM COM verbexit – look for any outstanding MALRL/MASRLs

DCLT: 00411410

MOEB Communications MAS Response List

```
+0000 LENGTH... 0080      NAME..... >EYUXCEYURXCLT          OBJID.... 05      TYPE..... 0004      VERSION.. 00
+0014 NEXT..... 0041D930  USECNT... 00000000  LISTRB... 80005303  CACHEID.. 01FF001D 000026C8      RECORDID. 0101006F
+0038          00017200  ENDING... 0001AF44  AMOUNT... 00003D44  LOWADDR.. 0001AED4  ELMNTLEN. 00000038  KEYOFF... 0000
+004E KEYLEN... 08      RSV..... 08      FLAG1.... 00      RSV..... 000A      SRCHTECH. 80      CURRCNT.. 00000002
+0058 FSPCCNT.. 00000019  MAXCNT... 00000118  HASHTBL.. 00000000  HASHLEN.. 00000000  DCAICHN.. 0041B4B0
```

CMRL: 0001AED4 COM1CM01 - MAS Response Element - MASRL

```
+0000 C3D4F0F1 00016006 176D6E18 04000000  C9E8D5E7 D6404040  C3C9C3E2 *CM01...->.....IYNXO  CICS*
+0020 D3F24040 00000000 00000000 16E886D8 00000000 00000000      *L2 .....YfQ..... *
```

MalPref

```
176D6E18          176D6EA8 176D6E58 00000000 00000000  C3C9C3E2 D3F24040 |      .->y.->.....CICSL2 |
176D6E30  C9E8D5E7 D6404040 00005DC0 00000000 00400200 00020000 00000000 16E886D8 | IYNXO ..){.....YfQ |
176D6E50 1754804C 00000000 |      ...<..... |
```

MAL Proper

```
176D6E58          004D0D00 001E0001  C3D4F0F1 FB000000 00000000 01000000 |      .(.....CM01..... |
176D6E70  D4D6E240 D5D8E3D2 00000000 5C404040 803236B5 00001BC0 00000000 00000000 | MOS NQTK....* .....{..... |
```

TspBlk

```
16E886D8          03606EC5 E8E4C3E3  C5E8E4D9 C3E3E2C2 08000600 00000000 |      .->EYUCTEYURCTSB..... |
16E886F0  CA20820A CE1A33BC 00000000 00011940 1754804C 04000000 00000000 00000000 | ..b.....<..... |
16E88710 00000000 0301004D 01000000  C3D4F0F1 00016006 00000000  C9E8D5E7 C3D4F0F1 | .....(.....CM01...->.....IYNXCM01 |
16E88730  C3C9C3E2 E4E2C5D9 1F860000  C1D7C9E4  C9E8D5E7 C3D4F0F1 010001C9 E8D5E7D6 | CICSUSER.f..APIUIYNXCM01...IYNXO |
16E88750 404040C3 C9C3E2D3 F24040C3 D4F0F100 01600600 00000000 00000000 00000000 |      CICSL2 CM01...->..... |
16E88770 00000000 00000000 00000000 00000189 00000000 176D6E18 00000000 16E88A38 | .....i.....->.....Y.. |
```

```
09/05/2012 17:38:32.166819 STCK X'CA20820A CE1A33BC'
09/05/2012 17:38:32.166819 UTC X'CA20820A CE1A33BC'
09/05/2012 18:38:32.166819 LOCAL X'CA208F74 085A33BC'
```

Dump walkthru – origin CMAS

CMRL: 0001AF0C COM1CM01 - MAS Response Element

```
+0000 C3D4F0F1 0001600C 176D9638 03000000 01010000 C9E8D5E7 D6404040 C3C9C3E2 *CM01...-..._o.....IYNXO CICS*
+0020 D3F24040 00000000 00000000 16E88378 00000000 00000000 *L2 .....Yc..... *
```

MALPref

```
176D9638 00000000 176D9678 00000000 00000000 C3C9C3E2 D3F24040 | ....._o.....CICSL2 |
176D9650 C9E8D5E7 D6404040 00005DC0 00000000 00400200 00020004 00000000 16E88378 | IYNXO ..){.....Yc. |
176D9670 1754802C 00000000 | ..... |
```

Mal proper

```
176D9678 007E1000 00220001 C3D4F0F1 FE643C00 00000000 01000000 | .=.....CM01..... |
176D9690 D4D6E240 C2C1C7D8 C3C9C3E2 D3F24040 80326EDC 00001D20 00000000 00000000 | MOS BAGQCICSL2 ..>..... |
176D96B0 00000000 00000000 00000000 0EFD0000 005C4040 40404040 40000000 00000000 | .....*..... |
```

TSPblk

```
16E88378 03606EC5 E8E4C3E3 C5E8E4D9 C3E3E2C2 08000600 00000000 | .->EYUCTEYURCTSB..... |
16E88390 CA208215 AD3719BE 00000000 00011940 1754802C 03000000 00000000 00000000 | ..b..... |
16E883B0 00000000 0301004D 01000000 C3D4F0F1 0001600C 00000000 C9E8D5E7 C3D4F0F1 | .....(....CM01...-.....IYNXCM01 |
16E883D0 C3C9C3E2 E4E2C5D9 1F870001 C1D7C9E4 C9E8D5E7 C3D4F0F1 010001C9 E8D5E7D6 | CICSUSER.g..APIUIYNXCM01...IYNXO |
16E883F0 404040C3 C9C3E2D3 F24040C3 D4F0F100 01600C00 00000000 00000000 00000000 | CICSL2 CM01...-..... |
16E88410 00000000 00000000 00000000 00000189 00000000 176D9638 00000000 16E88D98 | .....i....._o.....Y.q |
```

```
09/05/2012 17:38:43.566449 STCK X'CA208215 AD3719BE'
09/05/2012 17:38:43.566449 UTC X'CA208215 AD3719BE'
09/05/2012 18:38:43.566449 LOCAL X'CA208F7E E77719BE'
```

- CMAS perspective: 2 API request sent from CMAS IYNXCM01 to MAS IYNXO and is waiting the results. Why hasn't IYNXO responded?

Dump walkthru – origin CMAS

- DAT level 18 – see API request coming in
- KNL level 30 – see SSI route of the action method

22346	XDNR	XLOP	XDNR	DAT	Lv-18	18000	ATCBPost	CPSM	IYNXCM01	CMAS	18:38:32.16422	17:38:32.16422	9/05/12	1
22346	XDNR	XLOP	XDNR	DAT	Lv-18	18000	PreExec	Ext	CICSUSER	CMAS	18:38:32.16422	17:38:32.16422	9/05/12	2
22346	XLSI	MOMS	XDNR	KNL	Lv-30	30000	PRE_SEND	Ext	CICSUSER	CMAS	18:38:32.16559	17:38:32.16559	9/05/12	3
22346	XLSD	XLSI	XDNR	KNL	Lv-30	30000	DESTLIST	Ext	CICSUSER	CMAS	18:38:32.16676	17:38:32.16676	9/05/12	4
22346	XLSD	XLSI	XDNR	KNL	Lv-30	30000	EXECDMAL	Ext	CICSUSER	CMAS	18:38:32.16802	17:38:32.16802	9/05/12	5
22346	XLSD	XLSI	XDNR	KNL	Lv-30	30000	EXECDMAL	Ext	CICSUSER	CMAS	18:38:32.16963	17:38:32.16963	9/05/12	6
22346	XLSD	XLSI	XDNR	KNL	Lv-30	30000	EXECDMAL	Ext	CICSUSER	CMAS	18:38:32.16963	17:38:32.16963	9/05/12	7
22346	XLSD	XLSI	XDNR	KNL	Lv-30	30000	EXECDMAL	Ext	CICSUSER	CMAS	18:38:32.16983	17:38:32.16983	9/05/12	8
22348	XDNR	XLOP	XDNR	DAT	Lv-18	18000	ATCBPost	CPSM	IYNXCM01	CMAS	18:38:43.56422	17:38:43.56422	9/05/12	1
22348	XDNR	XLOP	XDNR	DAT	Lv-18	18000	PreExec	Ext	CICSUSER	CMAS	18:38:43.56423	17:38:43.56423	9/05/12	2
22348	XLSI	MOMS	XDNR	KNL	Lv-30	30000	PRE_SEND	Ext	CICSUSER	CMAS	18:38:43.56615	17:38:43.56615	9/05/12	3
22348	XLSD	XLSI	XDNR	KNL	Lv-30	30000	DESTLIST	Ext	CICSUSER	CMAS	18:38:43.56641	17:38:43.56641	9/05/12	4

```

22346 XDNR XLOP XDNR DAT Lv-18 18000 ATCBPost CPSM IYNXCM01 CMAS 18:38:32.16422 17:38:32.16422 9/05/12 1
22346 XDNR XLOP XDNR DAT Lv-18 18000 PreExec Ext CICSUSER CMAS 18:38:32.16422 17:38:32.16422 9/05/12 2
22346 XLSI MOMS XDNR KNL Lv-30 30000 PRE_SEND Ext CICSUSER CMAS 18:38:32.16559 17:38:32.16559 9/05/12 3
22346 XLSD XLSI XDNR KNL Lv-30 30000 DESTLIST Ext CICSUSER CMAS 18:38:32.16676 17:38:32.16676 9/05/12 4
    
```

```

Task:22346      GMT:17:38:32.16422  Date: 9/05/12
              Local-TOD:18:38:32.16422  UOW:(EUI)
              Method:XDNR      Prior:XLOP      Debug:PreExec  Point-Id:18000
              Major-Obj:DAT     Envrn:CMAS  Type:Level 18  Tran_Id:XDNR
              User:CICSUS      TSO-Id:IYNXCM Self-Pt:1F860000  CMAS-TCB:C1D7C9E4
    
```

GET_cmd Len:0120 Alet:01FF001F Addr:0074D018

```

AREA: 1389028E CPSM Trace Record Storage
+0000 00000000 00000120 00004000 F00A0000 *..... .0...* 1389028E
+0010 00000000 00000000 00000000 00000000 *.....* 1389029E
+0020 1F860000 E3C1E2D2 40404040 C3C9C3E2 *.f..TASK CICS* 138902AE
+0030 D3F24040 00000000 00000400 00000000 *L2 .....* 138902BE
+0040 00000000 00000000 00020000 00000000 *.....* 138902CE
+0050 CA20820A CD6AF4BC 00000000 00000000 *..b...4.....* 138902DE
+0060 00000000 00000000 00000000 00000000 *.....* 138902EE
+0070 00000000 00000000 00000000 00000000 *.....* 138902FE
+0080 C3C9C3E2 D3F24040 00000000 00000000 *CICSL2 .....* 1389030E
+0090 00000000 00000000 00000000 00000000 *.....* 1389031E
+00A0 through +0110 lines are same as above line.
    
```

```

Task:22346      GMT:17:38:32.16676  Date: 9/05/12
              Local-TOD:18:38:32.16676  UOW:(EUI)
              Method:XLSD      Prior:XLSI      Debug:DESTLIST Point-Id:30000
              Major-Obj:KNL     Envrn:CMAS  Type:Level 30  Tran_Id:XDNR
              User:CICSUS      TSO-Id:IYNXCM Self-Pt:1F860000  CMAS-TCB:C1D7C9E4
    
```

MasDest Len:002D Alet:00000000 Addr:176D5D17

```

AREA: 13890A20 CPSM Trace Record Storage
+0000 C9E8D5E7 D1404040 02C9E8D5 E7D64040 *IYNXJ .IYNXO * 13890A20
+0010 4002C9E8 D5E7E6E4 F0F102C9 E8D5E7F3 * .IYNXWU01.IYNX3* 13890A30
+0020 F4404002 C9E8D5E7 F9404040 02 *4 .IYNX9 . * 13890A40
    
```



```

22346 XLSD XLSI XDNR KNL Lv-30 30000 EXECDMAL Ext CICSUSER CMAS 18:38:32.16802 17:38:32.16802 9/05/12 5
22346 XLSD XLSI XDNR KNL Lv-30 30000 EXECDMAL Ext CICSUSER CMAS 18:38:32.16963 17:38:32.16963 9/05/12 6
22346 XLSD XLSI XDNR KNL Lv-30 30000 EXECDMAL Ext CICSUSER CMAS 18:38:32.16963 17:38:32.16963 9/05/12 7
22346 XLSD XLSI XDNR KNL Lv-30 30000 EXECDMAL Ext CICSUSER CMAS 18:38:32.16983 17:38:32.16983 9/05/12 8
    
```

```

Task:22346 GMT:17:38:32.16802 Date: 9/05/12
Local-TOD:18:38:32.16802 UOW:(EUI)
Method:XLSD Prior:XLSI Debug:EXECDMAL Point-Id:30000
Major-Obj:KNL Envrn:CMAS Type:Level 30 Tran_Id:XDNR
User:CICSUS TSO-Id:IYNXCM Self-Pt:1F860000 CMAS-TCB:C1D7C9E4
    
```

```

MalPref Len:0040 Alet:00000000 Addr:176D6EA8
AREA: 13890AFD CPSM Trace Record Storage
+0000 00000000 176D6EE8 00000000 00000000 *....._>Y.....* 13890AFD
+0010 C3C9C3E2 D3F24040 C9E8D5E7 E6E4F0F1 *CICSL2 IYNXWU01* 13890B0D
+0020 00005DC0 00000000 00400200 00020040 *..){..... * 13890B1D
+0030 00000000 16E88A38 1754804C 00000000 *.....Y.....<.....* 13890B2D
    
```

```

QueryQ Len:0020 Alet:00000000 Addr:176D5890
AREA: 13890BBA CPSM Trace Record Storage
+0000 D8A48540 D98583A2 40406E6E 00000006 *Que Recs >>....* 13890BBA
+0010 D8A48540 D481A740 D985836E 00000CA4 *Que Max Rec>...u* 13890BCA
    
```

```

Task:22346 GMT:17:38:32.16963 Date: 9/05/12
Local-TOD:18:38:32.16963 UOW:(EUI)
Method:XLSD Prior:XLSI Debug:EXECDMAL Point-Id:30000
Major-Obj:KNL Envrn:CMAS Type:Level 30 Tran_Id:XDNR
User:CICSUS TSO-Id:IYNXCM Self-Pt:1F860000 CMAS-TCB:C1D7C9E4
    
```

```

MalPref Len:0040 Alet:00000000 Addr:176D6FC8
AREA: 13890C8A CPSM Trace Record Storage
+0000 176D6F38 176D7008 00000000 00000000 *._?.._.....* 13890C8A
+0010 C3C9C3E2 D3F24040 C9E8D5E7 F9404040 *CICSL2 IYNX9 * 13890C9A
+0020 00005DC0 00000000 00400200 00020040 *..){..... * 13890CAA
+0030 00000000 16E88D98 1754804C 00000000 *.....Y.q...<.....* 13890CBA
    
```

```

QueryQ Len:0020 Alet:00000000 Addr:176D5890
AREA: 13890D47 CPSM Trace Record Storage
+0000 D8A48540 D98583A2 40406E6E 00000007 *Que Recs >>....* 13890D47
+0010 D8A48540 D481A740 D985836E 00000CA4 *Que Max Rec>...u* 13890D57
    
```



```

Task:22346      GMT:17:38:32.16963  Date: 9/05/12
Local-TOD:18:38:32.16963  UOW:(EUI)
Method:XLSD      Prior:XLSD      Debug:EXECDMAL  Point-Id:30000
Major-Obj:KNL    Envrn:CMAS      Type:Level 30  Tran_Id:XDNR
User:CICSUS      TSO-Id:IYNXCM  Self-Pt:1F860000  CMAS-TCB:C1D7C9E4

```

```

MalPref Len:0040 Alet:00000000 Addr:176D6F38
AREA: 13890E17 CPSM Trace Record Storage
+0000 00000000 176D6F78 00000000 00000000 *....._?.....* 13890E17
+0010 C3C9C3E2 D3F24040 C9E8D5E7 F3F44040 *CICSL2 IYNX34 * 13890E27
+0020 00005DC0 00000000 00400200 00020040 *..){..... * 13890E37
+0030 00000000 16E88018 1754804C 00000000 *.....Y.....<.....* 13890E47

```

```

QueryQ Len:0020 Alet:00000000 Addr:176D5890
AREA: 13890ED4 CPSM Trace Record Storage
+0000 D8A48540 D98583A2 40406E6E 00000007 *Que Recs >>....* 13890ED4
+0010 D8A48540 D481A740 D985836E 00000CA4 *Que Max Rec>...u* 13890EE4

```

```

Task:22346      GMT:17:38:32.16983  Date: 9/05/12
Local-TOD:18:38:32.16983  UOW:(EUI)
Method:XLSD      Prior:XLSD      Debug:EXECDMAL  Point-Id:30000
Major-Obj:KNL    Envrn:CMAS      Type:Level 30  Tran_Id:XDNR
User:CICSUS      TSO-Id:IYNXCM  Self-Pt:1F860000  CMAS-TCB:C1D7C9E4

```

```

MalPref Len:0040 Alet:00000000 Addr:176D6D88
AREA: 138910BE CPSM Trace Record Storage
+0000 00000000 176D6DC8 00000000 00000000 *....._H.....* 138910BE
+0010 C3C9C3E2 D3F24040 C9E8D5E7 D1404040 *CICSL2 IYNXJ * 138910CE
+0020 00005DC0 00000000 00400200 00020040 *..){..... * 138910DE
+0030 00000000 16E88378 1754804C 00000000 *.....Yc.....<.....* 138910EE

```

```

QueryQ Len:0020 Alet:00000000 Addr:176D5890
AREA: 1389117B CPSM Trace Record Storage
+0000 D8A48540 D98583A2 40406E6E 00000007 *Que Recs >>....* 1389117B
+0010 D8A48540 D481A740 D985836E 00000CA4 *Que Max Rec>...u* 1389118B

```

TASK request successfully sent to and executed in 4 targets


```

22348 XDNR XLOP XDNR DAT Lv-18 18000 ATCBPost CPSM IYNXCM01 CMAS 18:38:43.56422 17:38:43.56422 9/05/12 1
22348 XDNR XLOP XDNR DAT Lv-18 18000 PreExec Ext CICSUSER CMAS 18:38:43.56423 17:38:43.56423 9/05/12 2
22348 XLSI MOMS XDNR KNL Lv-30 30000 PRE_SEND Ext CICSUSER CMAS 18:38:43.56615 17:38:43.56615 9/05/12 3
22348 XLSI XDNR KNL Lv-30 30000 DESTLIST Ext CICSUSER CMAS 18:38:43.56641 17:38:43.56641 9/05/12 4
    
```

```

Task:22348      GMT:17:38:43.56423  Date: 9/05/12
      Local-TOD:18:38:43.56423  UOW:(EUI)
      Method:XDNR      Prior:XLOP      Debug:PreExec  Point-Id:18000
      Major-Obj:DAT    Envrn:CMAS    Type:Level 18  Tran_Id:XDNR
      User:CICSUS     TSO-Id:IYNXCM Self-Pt:1F870001  CMAS-TCB:C1D7C9E4
    
```

GET_cmd Len:012C Alet:01FF001F Addr:00749018

```

AREA: 138950BE CPSM Trace Record Storage
+0000 00000000 0000012C 00004000 F00A0000 *..... .0...* 138950BE
+0010 00000000 00000000 00000000 00000000 *.....* 138950CE
+0020 1F870001 D3C9C2C4 C5C64040 C3C9C3E2 *.g..LIBDEF CICS* 138950DE
+0030 D3F24040 00000000 00000400 00000000 *L2 .....* 138950EE
+0040 00000000 00000000 00020000 00000000 *.....* 138950FE
+0050 CA208215 AC9FF83E 00000000 00000000 *..b...8.....* 1389510E
+0060 00000000 00000000 00000000 00000000 *.....* 1389511E
+0070 00000000 00000000 00000000 00000000 *.....* 1389512E
+0080 C9E8D5E7 D6404040 00000000 00000000 *IYNXO .....* 1389513E
+0090 0000000C 00000000 00000000 00000000 *.....* 1389514E
+00A0 00000000 00000000 00000000 00000000 *.....* 1389515E
+00B0 through +0100 lines are same as above line.
+0110 00800000 00000120 00000000 0000000C *.....* 138951CE
+0120 C3E2C4C7 D9D6E4D7 4D5C5D4B *CSDGROUP(*). * 138951DE
    
```

```

Task:22348      GMT:17:38:43.56641  Date: 9/05/12
      Local-TOD:18:38:43.56641  UOW:(EUI)
      Method:XLSI      Prior:XLSI      Debug:DESTLIST  Point-Id:30000
      Major-Obj:KNL    Envrn:CMAS    Type:Level 30  Tran_Id:XDNR
      User:CICSUS     TSO-Id:IYNXCM Self-Pt:1F870001  CMAS-TCB:C1D7C9E4
    
```

MasDest Len:0009 Alet:00000000 Addr:176E46E7

```

AREA: 1389588D CPSM Trace Record Storage
+0000 C9E8D5E7 D6404040 00 *IYNXO . * 1389588D
    
```

LIBDEF request waiting to execute in IYNXO



Capture output – CAPTURE view/table userid cnt

- COD0 CAPTURE view/table userid count

```

Date: 9/11/12                SSI capture for User:CICSUSER Table:TASK
Time: 00:05:34.41327

      XLSIMal  Length:00000071 Alet:00000000 Addr:16EE35E0
0000 - 00710100 001B0001 00000000 BF442000 00000000 01000100 D4D6D4E2 E7D3E2C9 *.....MOMSXLSI*
0020 - E2E5D9F4 F2D7D3E7 E2E5D9F4 F2D7D3E7 E2E5D9F0 E2C4C3F0 1698D44C 16ECD824 *SVR42PLXSVR42PLXSVR0SDC0.qM<..Q.*
0040 - 00000000 00000000 00000000 00000000 01000000 00000000 00000000 00000000 *.....*
0060 - 00000000 00000000 00000000 00000000 01                *.....*

      MalPref  Length:00000040 Alet:00000000 Addr:16ECD824
0000 - 00000000 16ECD864 00000000 00000000 00000000 00000000 00000000 00000000 *.....Q.....*
0020 - 00000000 00000000 00000000 00000000 00000000 00000000 00000000 00000000 *.....*

      Mal      Length:0000004D Alet:00000000 Addr:16ECD864
0000 - 004D0D00 001E0001 E2C4C3F0 FB000000 00000000 010005E1 D4D6E240 D5D8E3D2 *.(.....SDC0.....MOS NQTK*
0020 - 00000000 5C404040 8020005E 00001680 00000000 00000000 00000000 00000000 *...* ...;*
0040 - 00000000 00000000 00000000 00                *.....*

      Mct      Length:0000001C Alet:00000000 Addr:16EE3B13
0000 - 00000000 A1030000 00280000 00000014 00240300 00000000 D5D8E3D2 *.....NQTK*

QueId: 8020005E00001680  Elements: 00000018  Max Length: 00000CA8
Type:  Work                Mode:      Repeat

Element 00000001  Length 00000CA8
    
```

Capture output

```

0000 - 00010014 00010C88 0C01E2E5 D9F0E2C4 E6F0E2E5 D9F4F2D7 D3E70020 C5F6F7F0 *.....h..SVR0SDW0SVR42PLX..E670*
0020 - 0000027C 40404040 000000E9 00000000 40404040 40404040 40404040 40404040 *...@      ...Z....      *
0040 - 40404040 40404040 000000FF 2717C377 09970001 000000E5 C4C6C8E3 C3D3F0F0 *      .....C..p.....VDFHTCL00*
0060 - C3D6D5D3 E2C8C1E8 D3C1D940 CA2717C3 77099763 E4404040 40404040 CA2717C3 *CONLCICSUSER...C..p.U      ...C*
0080 - 76F4AEA3 CA271E5D 4E115C64 40404040 40404040 C5E8E4F9 E7D3C5E5 C7C2C9C2 *.4.t...)+.*      EYU9XLEVGBIB*
00A0 - D4C9E8C1 4BE2E5D9 F0E2C4E6 F0404040 00000000 40404040 40404040 00000000 *MIYA.SVR0SDW0      ....      ....*
00C0 - 00000000 00000000 00000000 00000000 00000000 00000000 00000000 00000000 *.....*
00E0 - 00000000 00000000 00000000 00000001 00000138 00000000 00000000 000001A0 *.....*
0100 - 0001C560 00000000 00000000 00000000 00000000 00000000 000000CC 0000002A *..E-.....*
0120 - 354E9196 0046A778 00000000 0046A778 0046A778 00000000 00003690 00000000 *.+jo..x.....x...x.....*
0140 - 004670E8 00000000 00000000 00000000 00000000 00000000 00000000 00000000 *...Y.....*
0160 - 0000001C 00000000 00000000 0000001C 00000000 00000000 00000000 00000000 *.....*
0180 - 00000000 00000000 00000000 00000000 00000001 00000000 0000001A 00000000 *.....*
01A0 - 00000002 00000000 00000002 A68C5B3B 800000E9 00000000 72842586 000000E8 *.....w.$...Z....d.f...Y*
01C0 - 00000697 30905286 000000E9 00000000 0337BB05 000000E8 00000000 00000000 *..p...f...Z.....Y.....*
01E0 - 00000000 00000000 00000000 00000000 00000000 00000000 00000000 00000000 *.....*
0200 - 00000000 00000000 00000000 00000000 00000000 00000000 00000000 00000000 *.....*
0220 - 00000000 00000000 00000000 00000000 5A634F09 00000015 E4400000 000000CD *.....!.|.....U.....*
0240 - 0000000F 00000000 000000BB 00000292 C4C6C8C3 C9C3E2E3 000000A1 000000B3 *.....kDFHCICST.....*
0260 - 000000CA 00000000 0000C350 000000C6 00000281 0000017B 0000009E 000000B0 *.....C&...F...a...#.....*
0280 - 000000FF 40404040 40404040 00000200 40404040 40404040 00000000 00000000 *.....*
02A0 - 00000000 00000000 00000000 00000000 00000000 00000000 00000000 00000000 *.....*
02C0 - 00000000 00000000 00000000 00000000 00000000 00000018 00000000 00618700 *.....g.*
02E0 - 00000018 00000000 00123340 00000001 00000000 00000000 00000000 00000000 *.....*
0300 - 00000000 00000000 00000000 00000000 00000000 00000000 00000000 00000000 *.....*
0320 - 00000000 00000000 00000000 00000000 00000540 00000001 00000000 00000000 *.....*
0340 - 00000000 00000000 00000000 00000000 00000000 00000000 CA2717C3 77099763 *.....C..p.*
0360 - 40404040 40404040 40404040 40404040 80008040 01800000 40404040 00000000 *      ....*
0380 - 00000003 00001700 00000A20 00000023 000E7EA0 0002FB20 00000000 00000000 *.....=*
03A0 - 00000000 00000000 00000000 00000000 00000000 00000000 00000000 00000000 *.....*
03C0 - CA27252C B1038000 CA2717C3 77099763 00000000 00000000 000000C0 00000000 *.....C..p.....*
03E0 - 00000154 40404040 00000000 00000000 00000000 00000000 00000002 00000000 *.....*
    
```

Capture output

```

0400 - 00000000 00000000 00000656 9533BBBD 0000000F 00000000 00000000 00000000 * .....n.....*
0420 - 00000040 9575F0F4 00000005 00000000 0057AF80 00000083 00000000 00000000 * ... n.04.....c.....*
0440 - 00000000 00000000 00000000 00000000 0000000D 40404040 40404040 40404040 * .....*
0460 - 40404040 40404040 40404040 40404040 40404040 40404040 40404040 40404040 * .....*
0480 - 40404040 00000000 40404040 40404040 00000000 00000000 00000000 00000000 * .....*
04A0 - 00000000 00000000 00000421 40404040 40404040 40404040 40404040 40404040 * .....*
04C0 - 40404040 40404040 40404040 40404040 00000000 00000000 00000000 00000000 * .....*
04E0 - 00000000 00000000 00000000 00000000 00000000 00000000 00000000 00000000 * .....*
0500 - 00000000 40404040 40404040 40404040 40404040 40404040 40404040 40404040 * .....*
0520 - 40404040 40404040 40404040 40404040 40404040 40404040 40404040 40404040 * .....*
0540 - 40404040 40404040 40404040 40404040 00000000 00000000 00000000 00000000 * .....*
0560 - 00000000 00000000 00000000 00000000 00000000 00000000 00000000 00000000 * .....*
      Lines 0580 - 0600 are the same as above
0620 - 030F7985 000000CE 00000002 42699482 800000CF 00000000 6E1DB9C6 000000CE * ..`e.....mb.....>..F....*
0640 - 00000000 6422C6B9 0000001A 00000000 04666BC0 0000001A 00000000 00000000 * .....F.....*
0660 - 00000000 00000000 00000000 00000000 00000000 00000000 00000000 00000000 * .....*
      Lines 0680 - 06A0 are the same as above
06C0 - 00000000 40404040 40404040 40404040 40404040 40404040 40404040 40404040 * .....*
06E0 - 40404040 40404040 40404040 00000000 00000000 40404040 00000000 00000000 * .....*
0700 - 00000000 00000000 00000000 00000000 00000000 00000000 00000000 0000014E * .....+*
0720 - 16104F64 00000000 00000000 00000000 000199B0 0046A778 0046A778 00000000 * ..|......r...x...x....*
0740 - 00003690 00000000 004670E8 00000000 00000000 00000000 00000000 00000000 * .....Y.....*
0760 - 40404040 40404040 40404040 C5E8E4F9 E7D3C5E5 01000054 0000027C 1A11C7C2 * .....EYU9XLEV.....@..GB*
0780 - C9C2D4C9 E8C14BE2 E5D9F0E2 C4E6F0CA 2717C377 09EEA300 00000000 40404040 *IBMIYA.SVROSDW0...C...t....*
07A0 - 40404040 40404040 40404040 00000000 40404040 40404040 40404040 40404040 * .....*
07C0 - 40404040 40404040 40404040 40404040 40404040 40404040 40404040 40404040 * .....*
      Lines 07E0 - 0800 are the same as above
0820 - 40404040 40404040 40404040 40404040 00000000 00000000 00000000 00000000 * .....*
0840 - 00000000 00000000 00000000 00000000 00000000 00000000 00000000 00000000 * .....*
0860 - 00000000 00000000 00000000 00000000 00000000 00000000 00000000 00000000 * .....*
0880 - 00000000 640CEE79 00000015 00000000 04577880 00000015 00000000 00000000 * .....*
08A0 - 00000000 00000000 00000000 00000000 00000000 00000000 00000000 00000000 * .....*

```



Capture output

```

Lines 08C0 - 08E0 are the same as above
0900 - 00000000 00000000 00000000 00000000 00000000 00000000 00000000 0000006C * .....%*
0920 - 00000001 00000002 00000002 0000006C 00000002 00000002 00000002 00000002 * .....%*
0940 - 00000002 00000699 D71D1B84 2717C377 09970001 40404040 40404040 40404040 * .....rP..d..C..p..*
0960 - 00000000 00000000 00000000 00000000 00000000 00000000 00000000 00000000 * .....*
0980 - 00000000 00000000 00000000 00000000 00000000 00000000 00000000 00000000 * .....*
09A0 - 00000000 00000000 00000000 00000000 00000000 00000000 00000000 C7C2C9C2 D4C9E8C1 * .....GBIBMIYA*
09C0 - 4BE2E5D9 F0E2C4E6 F02717C3 7709971A 11C7C2C9 C2D4C9E8 C14BE2E5 D9F0E2C4 * .SVR0SDW0..C..p..GBIBMIYA.SVR0SD*
09E0 - E6F02717 C3770997 00010000 00000000 00000000 00000000 00000000 00000000 *W0..C..p.....*
0A00 - 00000000 00000000 00000000 00000000 00000000 00000000 00000000 00000000 * .....*

Lines 0A20 - 0A40 are the same as above
0A60 - 00000000 00000000 00000000 01A1A34D 00000034 00000000 00000000 00000000 * .....t(.....*
0A80 - 00000000 00000000 00000000 00000000 00000000 00000000 00000000 00000000 * .....*
0AA0 - 00000000 00000000 00000000 00000000 00000000 00000000 00000000 00000000 * .....*
0AC0 - 00000000 00000000 00000000 00000000 FF000000 C7C2C9C2 D4C9E8C1 0000027C * .....GBIBMIYA...@*
0AE0 - CA2717C3 76F4AEA3 E2E5D9F0 E2C4E6F0 C3D6D5D3 E2C8C1E8 D3C1D940 40404040 * ...C.4.tSVR0SDW0CONLSHAYLAR *
0B00 - 40404040 40404040 40404040 40404040 40404040 40404040 40404040 40404040 * *
0B20 - 40404040 40404040 40404040 40404040 40404040 40404040 40404040 40404040 * *
0B40 - 40404040 00000000 40404040 40404040 40404040 40404040 40404040 40404040 * .... *
0B60 - 40404040 40404040 40404040 40404040 00000000 80008040 01800000 40404040 * ..... *
0B80 - 40404040 00000000 00000000 00000000 00000000 00000000 40404040 40404040 * ..... *
0BA0 - 00000000 00000000 00000000 00000000 00000000 00000000 00000000 00000000 * .....*
0BC0 - 00000000 00000000 00000000 00000000 00000000 00000000 00000000 00000000 * .....*
0BE0 - 00000000 00000000 000030DE 00000000 00000000 00000000 40404040 40404040 * .....*
0C00 - 40404040 40404040 40404040 40404040 40404040 40404040 40404040 40404040 * *
0C20 - 40404040 40404040 40404040 40404040 40404040 40404040 0000008D 0000011C * .....*
0C40 - 00000000 00000000 00000000 00000000 00000000 00000000 40404040 40404040 * .....*
0C60 - 40404040 40404040 40404040 40404040 40404040 40404040 40404040 40404040 * *
0C80 - 40404040 40404040 40404040 40404040 40404040 40404040 00000000 00000000 * .....*
0CA0 - 00000000 00000000 * .....*
    
```



Documentation

- 1 - API hang – no COD0 LIST TASK in originating CMAS
 - ▶ Problem in CMAS or API address space
 - Collect dump of both regions
 - Collect job output from both address spaces
 - Collect related messages from SYSLOG
 - If no job output exists for API address space
 - Collect AUXtrace datasets from CMAS
 - Call Support

- 2 - Hang - no COD0 LIST TASK in originating CMAS
 - no Outbound LIST COMM
 - ▶ Problem in CMAS
 - Collect dump of CMAS
 - Collect job output from CMAS
 - Collect AUXtrace datasets from CMAS
 - Call Support

Documentation

- 3 - Hang - COD0 LIST TASK in originating CMAS
 - Outbound LIST COMM to MAS
 - ▶ If MAS sick, fix it
 - ▶ If MAS not sick, problem in CMAS or MAS
 - Collect dump of both regions
 - Collect job output from both address spaces
 - Collect AUXtrace datasets from CMAS
 - Collect AUXtrace datasets from MAS if active
 - Call Support

Documentation

- 4 - Hang - COD0 LIST TASK in originating CMAS
 - Outbound LIST COMM to another CMAS
 - no LIST TASK and/or no Inbound LIST COMM in other CMAS
- ▶ Problem in either CMAS or intermediate CMAS(s)
 - Determine intermediate CMASs, if any
 - Use COD0 START CPLC in CMAS
 - Collect dump of all CMASs
 - Collect job output from all CMASs
 - Collect AUXtrace datasets from all CMASs
 - Call Support

Documentation

- 5 - Hang - COD0 LIST TASK in originating CMAS
 - Outbound LIST COMM to another CMAS
 - LIST TASK and Inbound LIST COMM in other CMAS
 - no Outbound LIST COMM in other CMAS
 - ▶ Same as 3, only other CMAS instead of originating CMAS

- 6 - Hang - COD0 LIST TASK in originating CMAS
 - Outbound LIST COMM to another CMAS
 - LIST TASK and Inbound LIST COMM in other CMAS
 - Outbound LIST COMM to MAS in other CMAS
 - ▶ Same as 4, only other CMAS instead of originating CMAS

Summary

- User Request Processing
 - ▶ Defined the MAL and its associated control blocks
 - ▶ Request originate via CICS or NON-CICS applications
 - NON-CICS Program: RTA & CPSM API
 - CICS Program: WUI, CMCI, Explorer (WUI, CMCI, CPSM API Program)

- Known Problems
 - ▶ Requesting Too Much Data
 - ▶ LRT hung on prior CICS API/SPI command
 - ▶ MAS is unresponsive

- Debugging Tips
 - ▶ Tools
 - COD0 Transaction, CODB Transaction, EYU9XENF utility
 - ▶ Provided a number of hang scenarios with the needed documentation from a level II perspective to debug the problem.

Additional WebSphere Product Resources

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