IBM Software Group

OMEGAMON XE for CICS on z/OS and
CICS Performance Analyzer for z/OS

Diagnosing Performance Problems:

A Sample Scenario

OMEGAMON XE for CICS and CICS Performance Analyzer together make up a complete solution for monitoring, managing and eliminating performance problems. They work together cooperatively to provide you with the information to handle problems on a minute to minute basis, and to put in place long-term solutions to get the best possible value from your CICS systems.

In this presentation, we'd like to show you one way in which the products work together for a long-term resolution of a problem that caused a serious interruption to the productivity of CICS users ….

Preface

- The following terms are trademarks or registered trademarks of the International Business Machines Corporation in the United States and/or other countries:
  - ▸ CICS, CICSPlex SM
  - ▸ DB2
  - ▸ IBM
  - ▸ z/OS, zSeries
  - ▸ Tivoli, Tivoli Enterprise, WebSphere, OMEGAMON
- Java and all Java-based trademarks and logos are trademarks or registered trademarks of Sun Microsystems, Inc. in the United States and/or other countries.

2

The usual disclaimers ….

IBM

Performance and Availability Management Solutions for CICS

Managing system performance and planning capacity for the future

OMEGAMON XE for CICS

- Provides a real-time and historical performance management, monitoring and troubleshooting solution for CICS

- Helps you to detect performance problems early, identify cause and change system and resource parameters to avoid problems

CICS Performance Analyzer

- Provides ongoing system management and measurement reports on all aspects of CICS application performance
- Enables deep-dive CICS performance analysis and understanding of usage trends
- Aids capacity planning and tuning
- Helps quickly identify and eliminate trends leading to online performance problems

- Plan capacity to reduce MIPS cost

- Proactively analyze performance trends to reduce down time and increase customer satisfaction

- Reduce cost of outages

- Reduce risk of missing the service level commitments

- Reduce time and cost of managing system performance and availability

3

For many customers, CICS is the backbone of the enterprise. Run-time system performance optimization, performance problem-determination and capacity planning are all critical if you're to meet the performance levels you need to fully support an on demand business.

•OMEGAMON XE for CICS on z/OS helps you actively manage complex CICS systems – including CICS in an IBM Parallel Sysplex environment – to achieve high performance and to avoid costly downtime. It has a flexible easy-to-use browser interface, so it helps you clearly see and understand application and system events. You can monitor and manage CICS transactions at the big picture and granular levels, as well as interaction with other applications, within a single interface. You can detect problems quickly and take action in real time to speed problem resolution.

•Online monitors have a limited time window for you to access the data – depending on the storage you allocate for it. IBM CICS Performance Analyzer for z/OS– CICS PA for short - allows you to analyse the data at a time that suits you. CICS PA works well with OMEGAMON XE for CICS, because it can help you quickly respond to online issues identified by OMEGAMON by drilling down into CICS performance data to identify the cause of the problem.

•CICS PA helps build, manage and deploy complex CICS applications, while maintaining high levels of performance. You'll find it provides a high level of detail and flexibility to help you easily find new ways to improve CICS system performance and reduce maintenance costs. And to give you optimum control, CICS PA provides a wide range of systems management and measurement reports, easily tailored to your specific requirements. You can also combine these reports with flexible historical database facilities, a powerful tool to help in trend analysis and capacity planning.

OMEGAMON XE for CICS, and CICS PA

- This scenario will track a situation from the OMEGAMON perspective, showing how a user would deal with a raised event during their business day

- We then go on to further analyze the situation to fully understand if we have a recurring event that will affect our transaction throughput using CICS Performance Analyzer
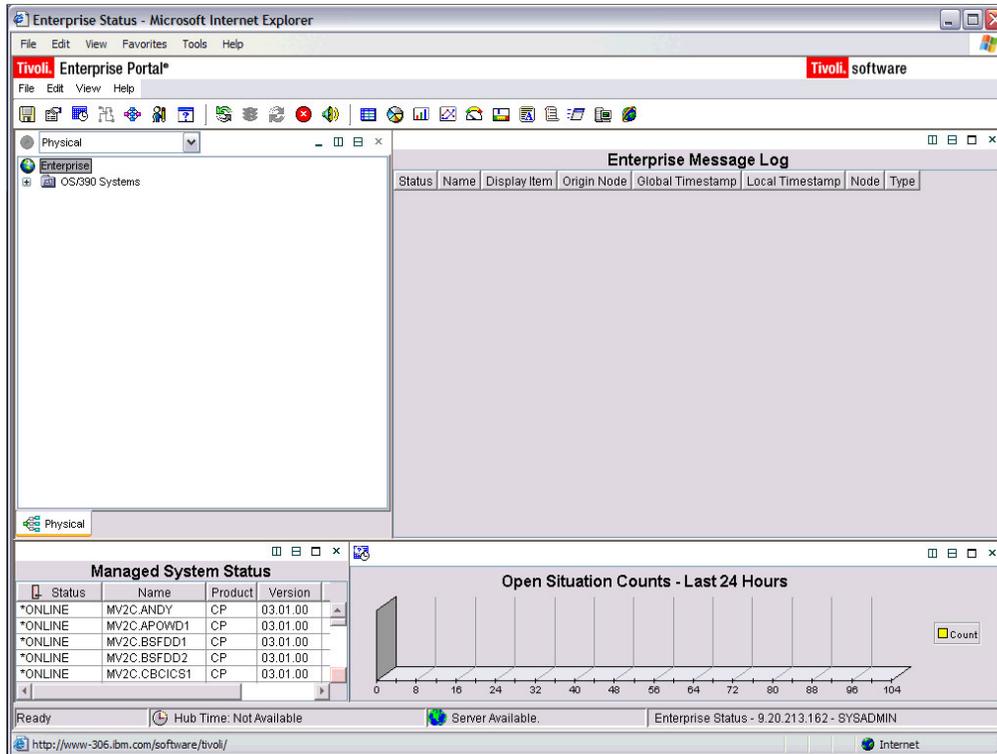
C I C S
Lifecycle Tools

4
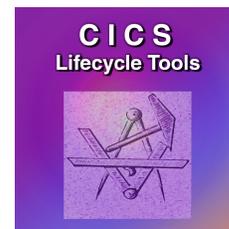
The most obvious way to use OMEGAMON and CICS PA together is to use OMEGAMON to identify performance problems in the short-term, and fix the situation, so that user can continue to be productive. Then you can use CICS PA to thoroughly understand the reasons for the problem and put in place actions to prevent that situation happening again.

But the value of CICS PA goes way beyond the resolution of immediate problems – it's an excellent solution for longer-term monitoring too. You can analyse historical data, looking for trends, so that you can reduce bottlenecks, maximize capacity and tune your CICS systems for best perfomance. The two products together, CICS and OMEGAMON, give you a full-spectrum solution for all of your CICS performance problems.

In this presentation, we'll show you just one of the ways in which the two products work together, for a long-term resolution of the type of problem that many of you may have seen before .… it's in two parts: the first shows a scenario with OMEGAMON tracking a VSAM record level sharing deadlock between two CICS regions – a typical situation that can have a drastic impact on the productivity of your users, who're unable to process their own transactions while the resources they need are unavailable. Here, you and OMEGAMON will resolve the situation allowing your users to be fully productive as soon as possible.

The second half shows how you can use CICS PA to do a deeper analysis of the situation to minimize the chances of similar situations happening in the future.

OMEGAMON XE for CICS on z/OS is a component that runs within the Tivoli Enterprise Portal (*). When you start the Enterprise Portal, you see four different workspaces in the introductory screen, and the left-hand workspace presents you with a view of the Enterprise and the underlying systems (in this case z/OS). OMEGAMON can monitor many different types of system, but this presentation is CICS focused, so we'll need to expand this view to get to the detailed view of our CICS systems.

This screen shows a stable system, with no alerts or messages to indicate out-of-line situations ….

(*) Tivoli Enterprise Portal is shipped with your purchase of OMEGAMON XE for CICS on z/OS
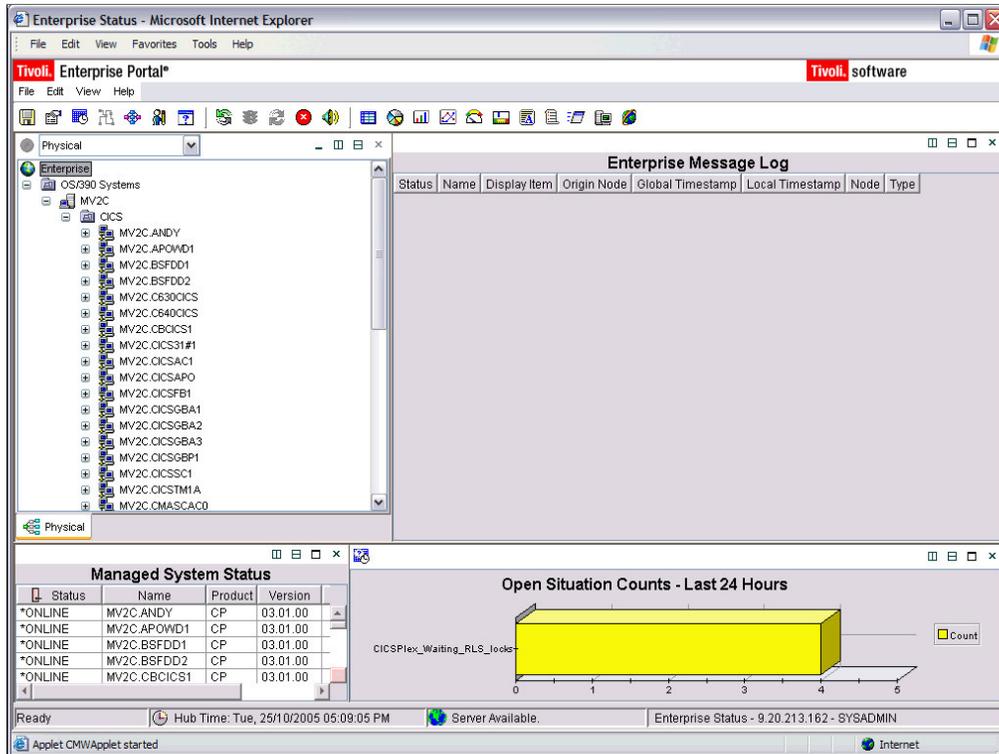
At this stage, we've expanded the navigation panel to show the CICS regions that we're currently monitoring. We can see at a glance that we have nothing to worry about - if there were any situations currently active, we would see a red warning icon in the tree pointing to the region that has the problem

Although there are no current situations, we can see that there have been four open situations that have been triggered in the last 24 hours, and have all been dealt with.

If you expand one of the CICS regions by clicking on the plus box, OMEGAMON displays a list of the different reports available ....
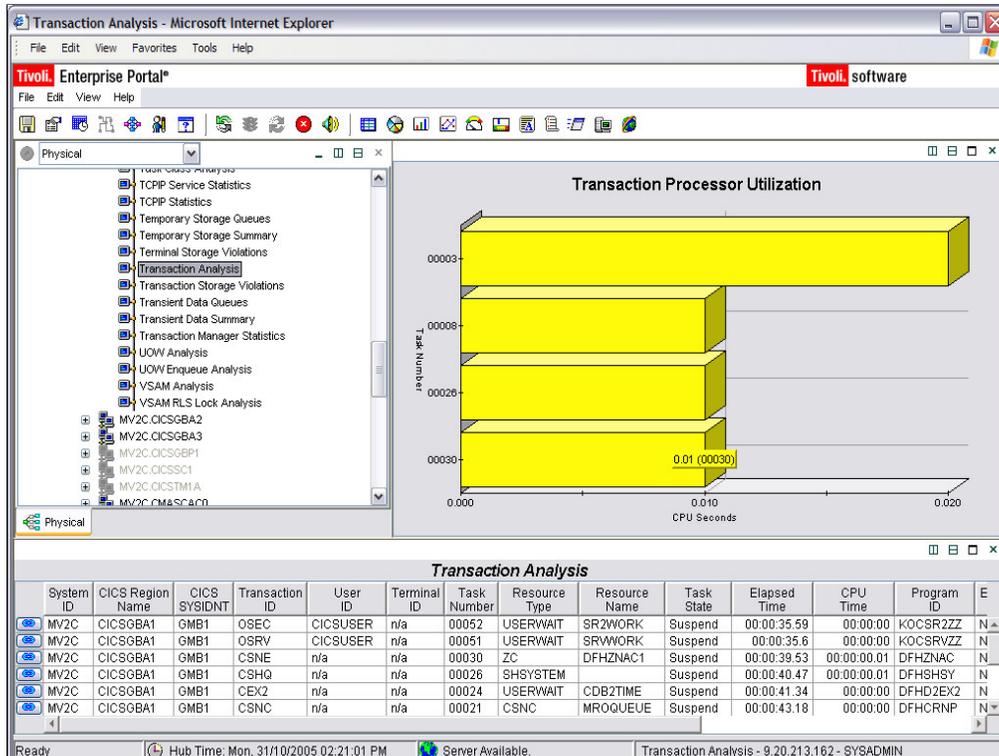
In this instance, we've selected the Transaction Analysis query for one particular system. Although there may be many transactions listed in the pane at the bottom of the screen, the graph shows only those transactions that are currently using CPU time. This way, you get an immediate visual representation of processor activity in the region.

The lower workspace, labeled Transaction Analysis, contains blue links. If you hover your pointer over a link, a pop-up will give you immediate access to additional workspaces with further information …..
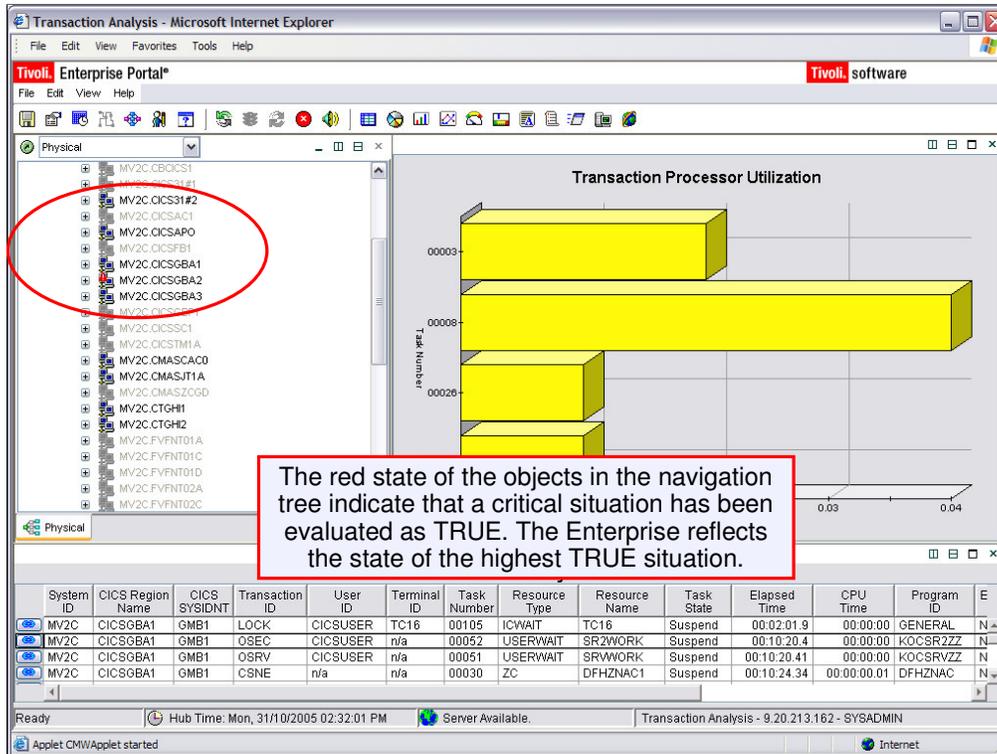
The strength and flexibility of OMEGAMON XE for CICS is in the ability to set criteria for different situations. For instance, you can identify tasks waiting for specific resources by specifying the maximum acceptable wait time. When a task waits for longer than the criteria you have set in an evaluation statement, the statement is flagged as TRUE, with a severity that you can set. Triggering the situation signals an alert that will be flagged up to the highest level of the navigation tree, so that it is visible to the user. The tree is then expanded down to the region that has triggered the event. In this screen capture, you can see the region flagged, but the alerts are also flagged in parts of the tree that aren't visible in the navigation pane.

At this point, we need to investigate the alert, so we expand the region by clicking on the plus box …..
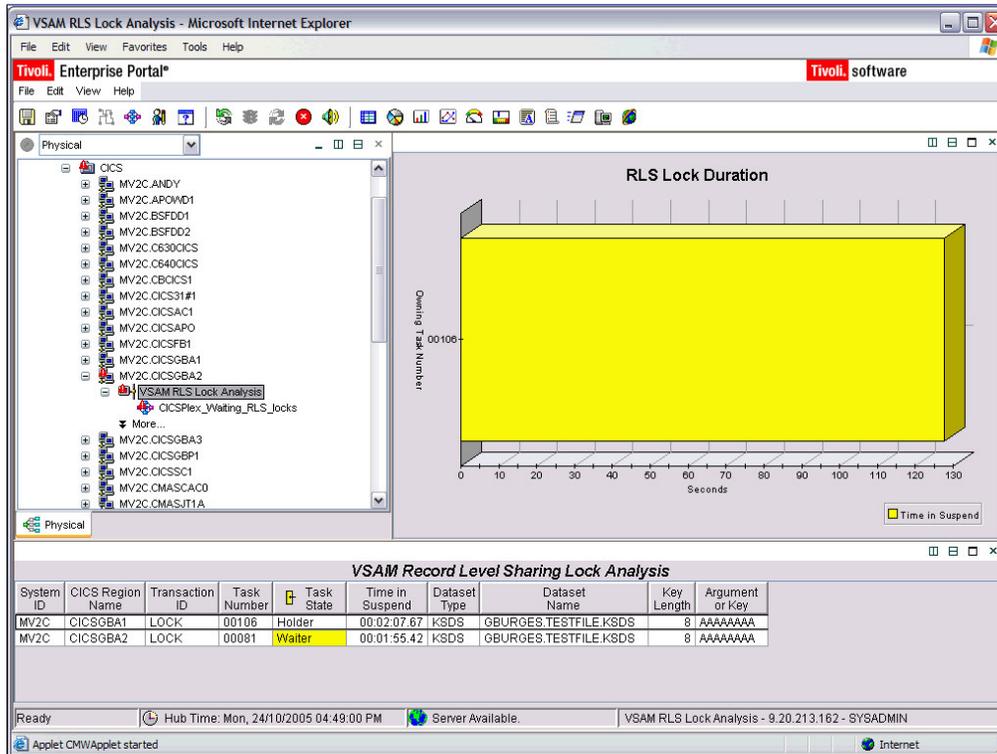
…… and we see that task 106 in CICS region CICSGBA1 is holding resource GBURGES.TESTFILE.KSDS, while task 81 in a different CICS region, CICSGBA2, is waiting for this resource to become available. OMEGAMON XE for CICS has highlighted the Waiter. Task 81 has been waiting for nearly 2 minutes – for the purpose of this presentation the evaluation criterion has been set to a maximum wait of **2.5** seconds. As well as noting the task numbers, we'll note that the transaction ID is LOCK, for later analysis.

The navigation pane highlights the alert situation – you can access other resources in the region with a problem by clicking on "More …"

Obviously we'd like to resolve the situation, and the first stage is to take control. We need to free up task 106 so that task 81 can resume …..

We can intervene in the situation by positioning the cursor over one of the highlighted symbols. This pops up a window identifying the situation that has been triggered. Now, by right-clicking on the message, you'll see a context menu that allows you to acknowledge or close the alert ….
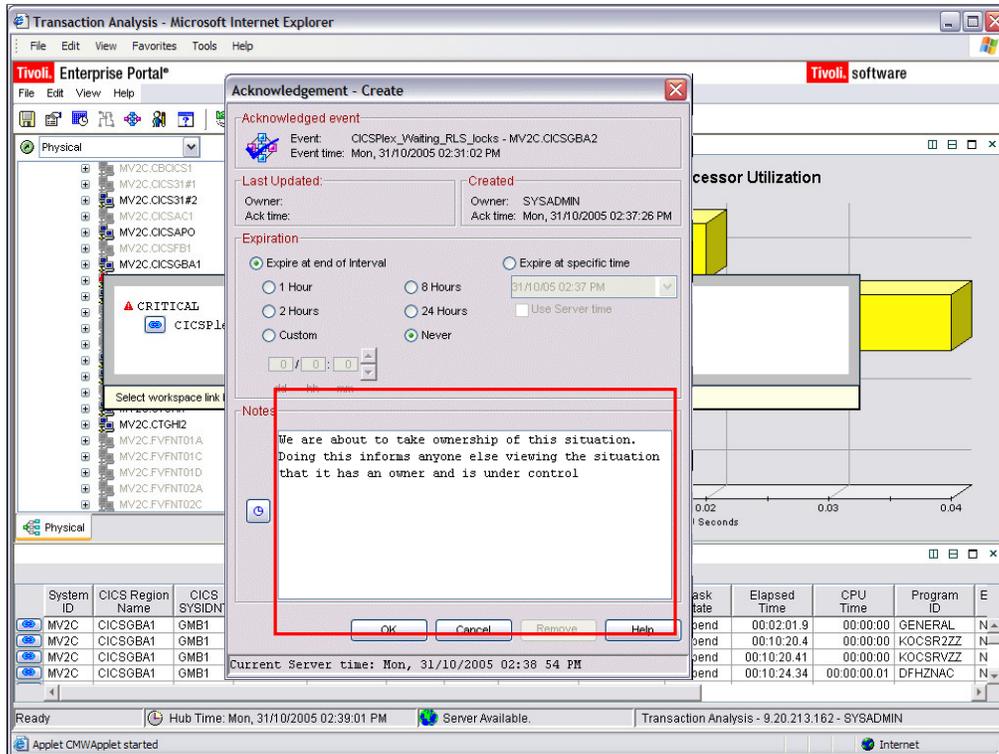
Here, we've used the context menu to create an acknowledgement for the situation, showing that a user has taken control and will take remedial action to correct it. We can make comments to create a record of planned actions or any other information that will be useful in later analysis. In reality we'd note tasks numbers (106 and 81), and the transaction id, LOCK.
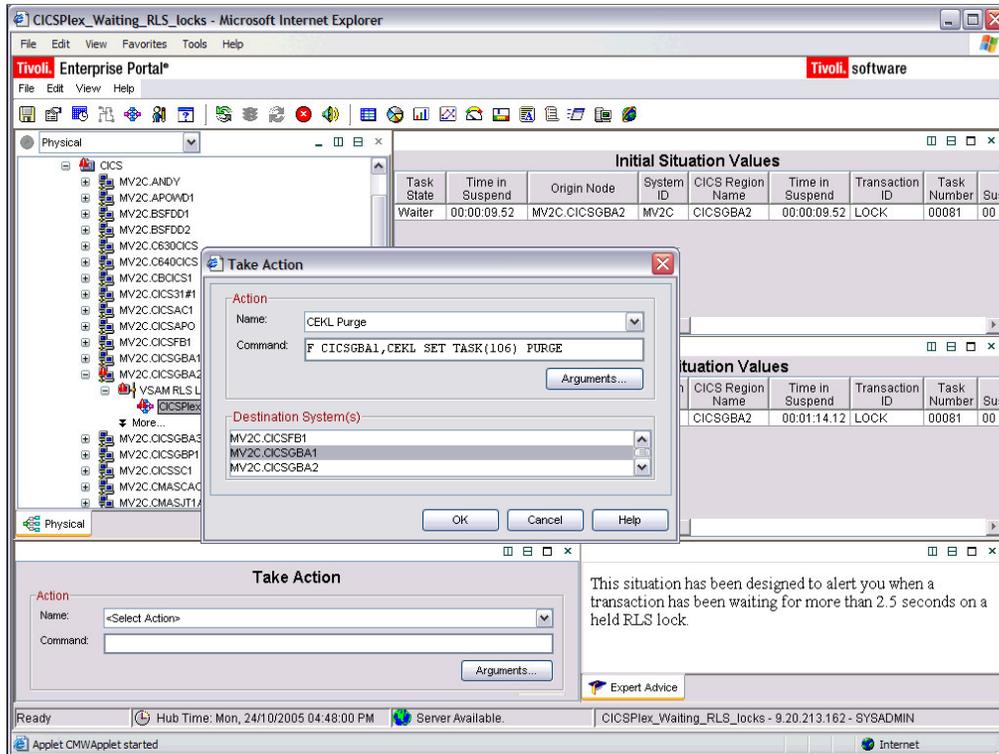
Having acknowledged the situation, we can click directly on the link and we'll get a window that allows us to take direct control of the situation …. We'll see diagnostic data reflecting the situation values, the cause of the problem, expert advice, and the Take Action option to resolve the issue.

In this slide, the "advice" is simply an explanation of the way the situation was defined for this presentation. In a real alert, the Expert Advice could be to suggest that the operator "kills" transaction 106 holding the lock and then investigate the application to determine why it is holding the resource for so long. OMEGAMON XE for CICS comes with supplied advice but you can also build up your own additional advice based on your experience with your own systems.

Here, we've selected the Take Action option from the drop down associated with the alert and then selected Take Action which has given us a pop-up where we entered the CICS region name, the number of the task we want to purge (106), and the destination system. We now press OK and the task is gone……………………
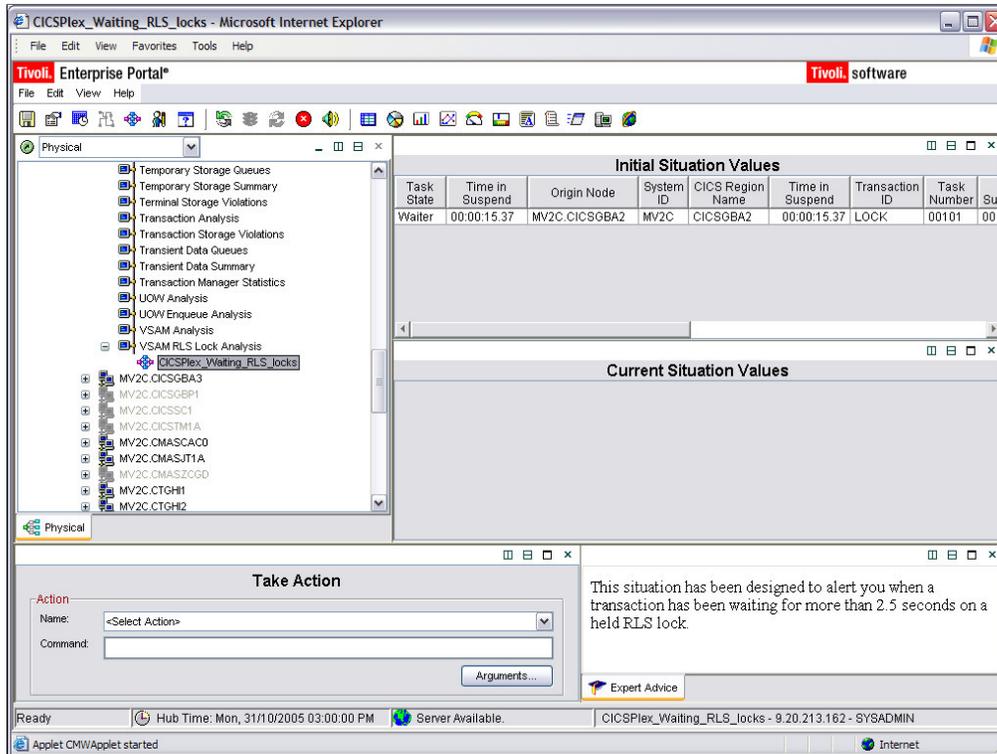
….. and the next time the situation executed, OMEGAMON XE discovered that the criteria it is monitoring are no longer true so it turned the alert flag off, and all the alert flags disappear from the screen. However, you'll see that the situation remains visible until the operator closes the event, or if the criteria for another event become TRUE, and another situation fires.

After the transaction has been killed, the customer's transaction recovery procedures will need to be invoked to advise the user of the transaction's outcome ….

OMEGAMON XE for CICS, and CICS PA
- what can we do to prevent this happening again ?

- We dealt with our alert online using OMEGAMON and resolved the problem.

- Now we're going to use CICS PA reports to do more in-depth analysis of these locks to see if they are occurring frequently.

14

So, with OMEGAMON XE for CICS you can see how positively you can deal with out-of-line situations when they occur. You're immediately warned of the situations as they occur, and you're given all the context information you need to deal with the situation.

But, after handling them, you may wonder why these situations occur, and what causes them. CICS PA gives you the ability to analyse data over the long-term to find out if there are underlying circumstances that you can change to minimize the type of problem that we've just seen.

In OMEGAMON XE for CICS, it's straightforward to configure a workspace so that CICS Performance Analyser can be used at the same time. In this example we are using the Java Program Analysis workspace to display a list of all the Java Programs in the system and have configured the 3270 emulator to have a TSO session active showing the main menu for CICS Performance Analyser.
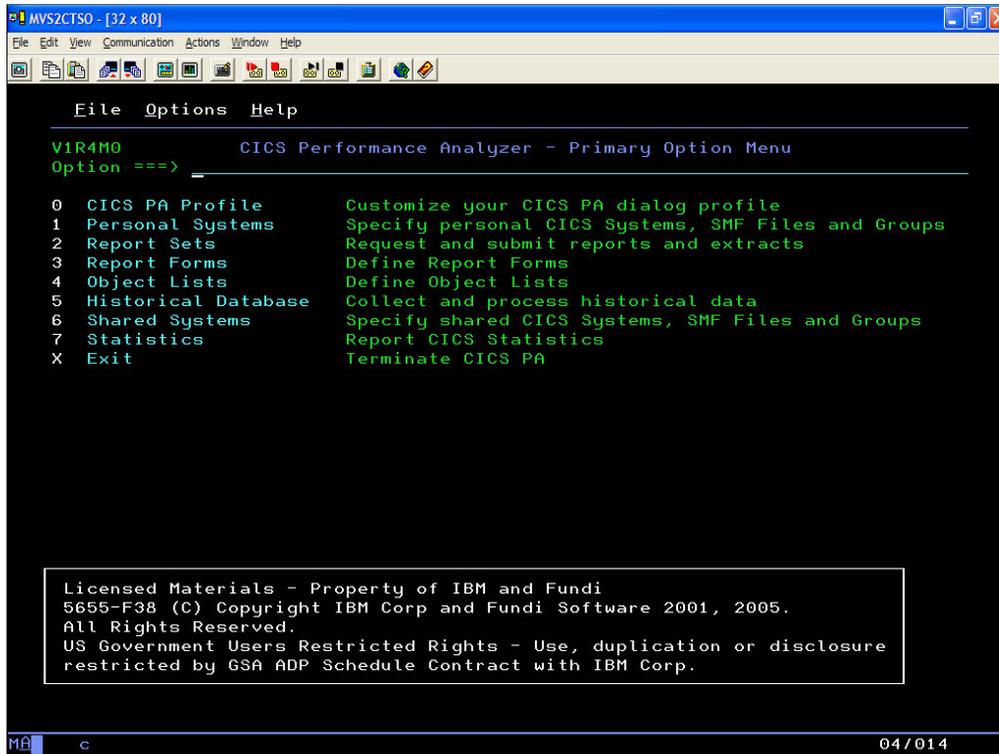
CICS PA has an easy to use TSO ISPF dialog interface (here we're looking at the CICS PA primary option menu panel) that can be used to create the command language and JCL that is used to run the reporting and analysis programs in batch. It has extensive online help facilities and a powerful command language for selecting, sorting and customizing the report formats and data extracts. It also has an Historical Database capability including reporting and data export functions to DB2 and to CSV files along with an CICS Statistics SMF data viewer and reporter function using the CICS PA ISPF dialog.

  This section of the presentation shows some of the CICS PA reports that can be used to analyze the CICS Monitoring Facility data that has been collected during the situation alert shown earlier. The objective here is to perform a more in depth analysis of the problem and assess its impact in the overall performance of our CICS systems and applications.

Option 2 here takes us to the Report Sets screen ….

16

..... Where we can see that there is only one existing report set, called TRANSET. Our first activity is to define a report set for our situation, and the definition will give us an overview of exactly what type of reports and extracts we want to create from the SMF data. To create a new report set, all we need do is enter the command 'NEW' on the command line......
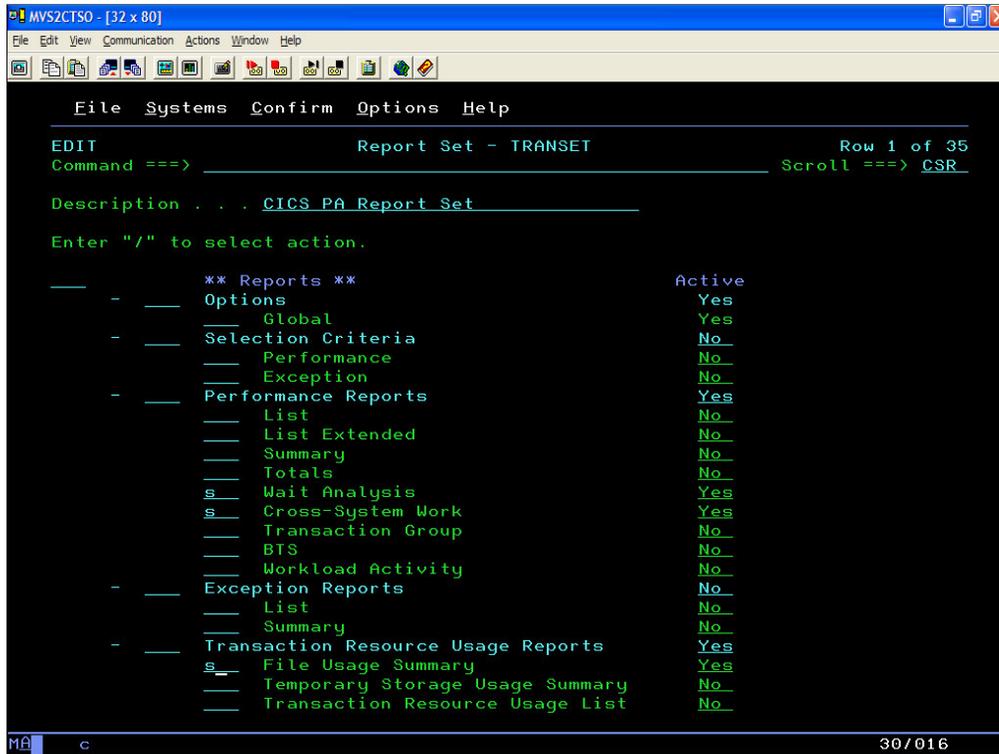
…. which takes us to the report set selection panel. The categories shown on this panel are collapsible so that we don't need to scroll up and down. In this example, we are interested in the Performance Reports and Transaction Resource Usage Reports. We've selected the Wait Analysis and Cross-System Work reports to view our transaction activity (because we saw in OMEGAMON XE for CICS that the situation crossed two CICS regions) and the File Usage Summary report to determine the actual filenames used by our transactions, so that we can find which one caused the problem.
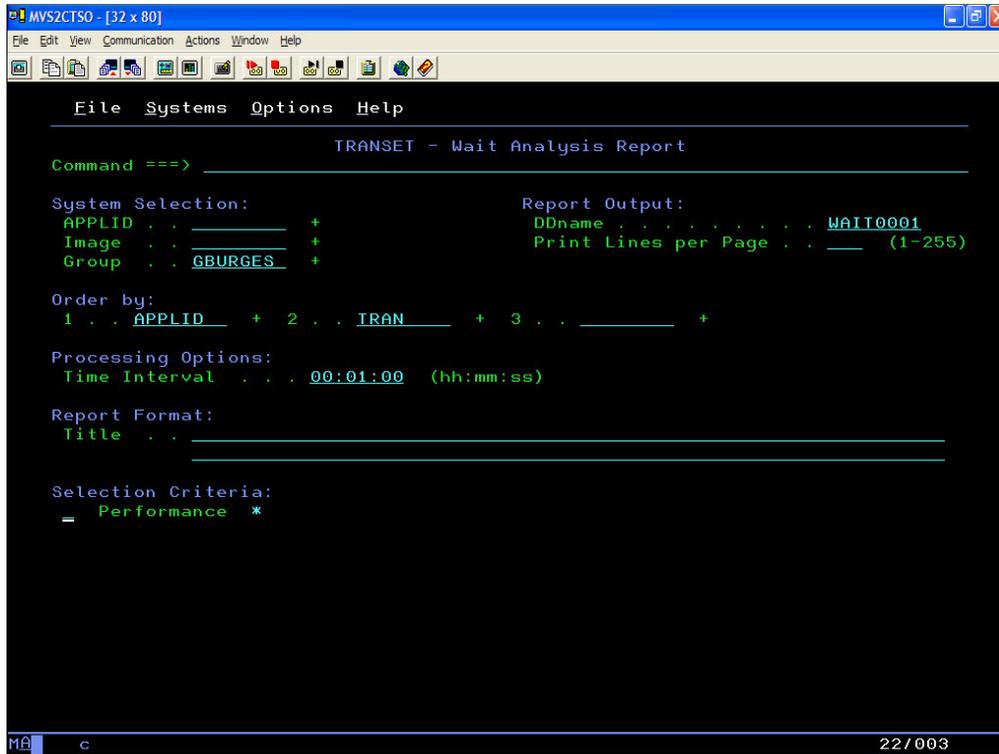
   In this presentation, we'll just show how to specify one of the three reports we selected. Here we've selected the Wait Analysis Report, and we've selected the CICS systems for the report using a Group name. Although not shown in this presentation, we can define to CICS PA a group of CICS regions (and DB2, MQ, and Logger subsystems) and submit report requests using a group name. CICS PA will then automatically create the appropriate system selection criteria without the need to specify each system individually in each report request.

   In this example, we've requested that the data be ordered by transaction ID within Applid and we've also used Performance Selection Criteria (which will take us to the next slide) to further filter the performance data for our report……
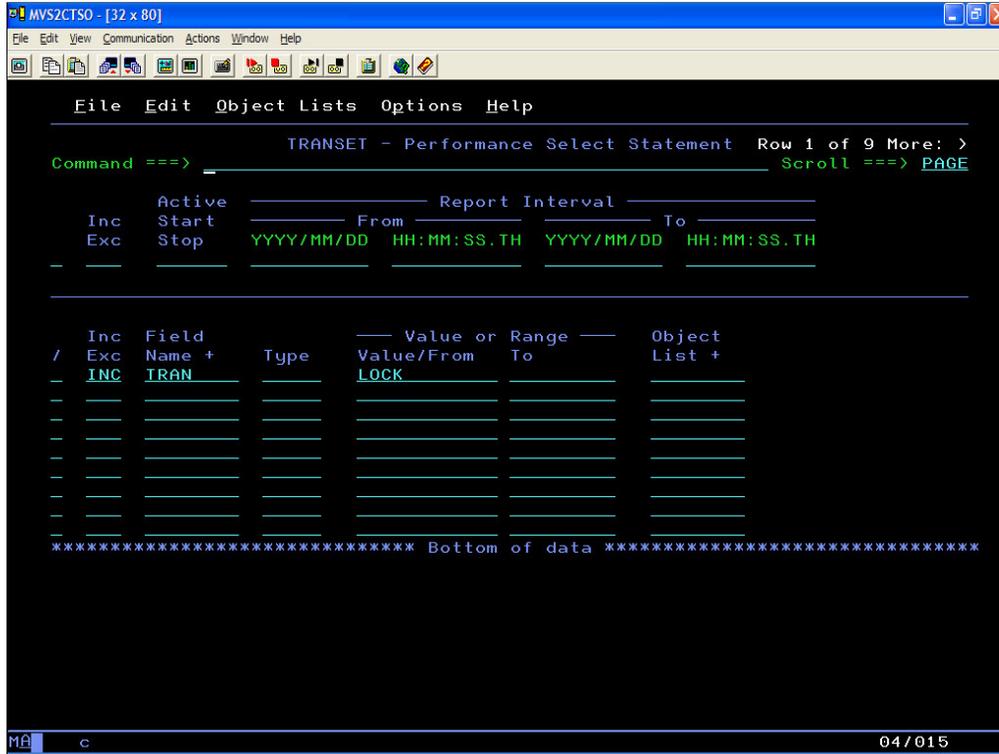
All the CICS PA reports and extracts can be filtered using Selection Criteria. You can specify Global Selection Criteria that applies to all the reports and extracts in a report set or Local Selection Criteria that applies to a single report or extract.

In our particular scenario, we're selecting a particular transaction ID, LOCK, because that's the one that we saw in the transaction alert, but we could also select the CMF performance data using any field or combinations of fields. e.g. to include data only for a particular transaction id, user id, or only for a specific period of time.

Having completed our Wait Analysis Report request, we would go through a similar process for the Cross-System Work Report request and the File Usage Summary Report request using the same Group name for our CICS system selection and using Selection Criteria to filter the CMF performance data to the specific transaction that is of interest.

We are now ready to submit our report set for execution …….

..... and to do this we simply type RUN on the command line, or in any of the active report categories, and this creates the JCL and CICS PA command language required for the reports and extracts that we have requested in our report set ready for execution.......

MVS2CTSO - [32 x 80]

File Edit View Communication Actions Window Help

File Edit Edit_Settings Menu Utilities Compilers Test Help

```
EDIT       CBAKER.SPFTEMP1.CNTL                    Columns 00001 00072
Command ===> _____  Scroll ===> PAGE
000027 //SYSIN DD *
000028 * Report Set =TRANSET
000029 * Description=CICS PA Report Set
000030 * Reports for Group=GBURGES
000031        CICSPA IN(SMFIN001),
000032               APPLID(IYK2ZFV1,
000033                      IYK2ZFV2,
000034                      IYK2ZFV3),
000035               LINECNT(60),
000036               FORMAT(':','/'),
000037               PRECISION(4),
000038             CROSS(OUTPUT(CROS0001),
000039               EXTERNAL(CPAXW001),
000040               SELUOW(PERFORMANCE(
000041               INC(TRAN(LOCK,
000042                        LINK)))),
000043               PRINTMULTIPLE,PRINTSINGLE,NOWRITE),
000044             RESUSAGE(OUTPUT(FILE0001),
000045               SELECT(PERFORMANCE(
000046               INC(TRAN(LOCK)))),
000047               TRANSUMM(FILE),
000048               FILESUMM(BYTRAN,TOTAL)),
000049             WAITANAL(OUTPUT(WAIT0001),
000050               SELECT(PERFORMANCE(
000051               INC(TRAN(LOCK)))),
000052               INTERVAL(00:01:00),
000053               BY(APPLID,TRAN))
000054 /*
```

The JCL created by the report request can be saved to be run again. Typically it's hidden from the customer when they run the report.

MA   c   04/015

If you selected the Edit JCL option, you can see the reports and options you chose to include in this report set. You can then review and modify the JCL if required and then submit the job for execution or you can save the JCL in a JCL library that can then be used as part of any Job Scheduling or Automation process.

Simply press Enter to submit the request ….. and to view the CICS PA output you can use SDSF or ISPF option 3.8, Outlist Utility.

Cross-System Work Report

```
V1R4M0                                        CICS Performance Analyzer
                                                Cross-System Work

CROS0001 Printed at 11:23:00 11/02/2005 Data from 15:02:24 10/24/2005 to 16:58:46 10/24/2005                    Page      1

                                  Request        Fcty Conn                    UOW            R                 Response A
Tran Userid    SC TranType Term  LUName   Type   Program T/Name Name NETName  Seq APPLID     Task T  Stop Time    Time   B

LOCK CICSUSER TO U          T169 IYCWT169 AP:    GENERAL T/T169      GBIBMIYA.IYCWT169  1 IYK2ZFV2   115 T 15:11:48.050 32.5170 Y

LOCK CICSUSER TO U          T170 IYCWT170 AP:    GENERAL T/T170      GBIBMIYA.IYCWT170  1 IYK2ZFV1   115 T 15:13:21.977 31.1209 Y

LOCK CICSUSER TO U          T170 IYCWT170 AP:    GENERAL T/T170      GBIBMIYA.IYCWT170  1 IYK2ZFV1   119 T 15:14:30.257 54.6545

LOCK CICSUSER TO U          T170 IYCWT170 AP:    GENERAL T/T170      GBIBMIYA.IYCWT170  1 IYK2ZFV1   124 T 15:20:28.159 32.2999 Y

LOCK CICSUSER TO U          T170 IYCWT170 AP:    GENERAL T/T170      GBIBMIYA.IYCWT170  1 IYK2ZFV1   126 T 15:21:39.152 32.4154 Y

LOCK CICSUSER TO U          T170 IYCWT170 AP:    GENERAL T/T170      GBIBMIYA.IYCWT170  1 IYK2ZFV1   139 T 15:39:55.933 220.846

LOCK CICSUSER TO U          T170 IYCWT170 AP:    GENERAL T/T170      GBIBMIYA.IYCWT170  1 IYK2ZFV1   145 T 15:44:23.287 239.740

LOCK CICSUSER TO U          T170 IYCWT170 AP:    GENERAL T/T170      GBIBMIYA.IYCWT170  1 IYK2ZFV1   106 T 15:52:01.735 448.871

LOCK CICSUSER TO U          T171 IYCWT171 AP:    GENERAL T/T171      GBIBMIYA.IYCWT171  1 IYK2ZFV2   129 T 15:14:25.050 32.1299 Y

LOCK CICSUSER TO U          T171 IYCWT171 AP:    GENERAL T/T171      GBIBMIYA.IYCWT171  1 IYK2ZFV2   081 T 15:34:33.430 894.431

LOCK CICSUSER TO U          T171 IYCWT171 AP:    GENERAL T/T171      GBIBMIYA.IYCWT171  1 IYK2ZFV2   144 T 15:35:10.963 37.5284

LOCK CICSUSER TO U          T171 IYCWT171 AP:    GENERAL T/T171      GBIBMIYA.IYCWT171  1 IYK2ZFV2   162 T 15:41:05.046 31.8238 Y

LOCK CICSUSER TO U          T171 IYCWT171 AP:    GENERAL T/T171      GBIBMIYA.IYCWT171  1 IYK2ZFV2   164 T 15:42:16.052 31.8847 Y
```

This is an example of the Cross-System Work report created from the CMF performance data that was captured at the time of the poor response time. This report correlates the CMF performance data from across multiple CICS regions and shows in which CICS regions our transaction executed. We can use this report to identify in which CICS region the transaction originated, if it was transaction-routed to another CICS region and where to. We can determine in which CICS region the application part of the transaction executed and if the application accessed (using CICS function shipping) any other remote CICS resources, such as files, temporary storage, etc, and in which CICS region those resources were located.

An important piece of information from this report is that the two highlighted transactions (the ones that triggered the analysis) are not the only transactions with long reponse times, so the problem is greater than was apparent from the original occurrence ….

Wait Analysis Report

```
V1R4M0                                    CICS Performance Analyzer
                                            Wait Analysis Report


WAIT0001 Printed at 11:23:00 11/02/2005    Data from 15:11:15 10/24/2005 to 16:56:27 10/24/2005          Page      1
--------------------------------------------------------------------------------------------------------------------
APPLID=IYK2ZFV1  Tran=LOCK
  Summary Data                                  -------- Time --------    ------ Count ------    ------ Ratio ------
                                                  Total     Average       Total     Average
     # Tasks                                                                13
     Response Time                              1608.6077   123.7391
     Dispatch Time                                 1.5424     0.1186        121        9.3        0.1% of Response
     CPU Time                                      0.4230     0.0325        121        9.3       27.4% of Dispatch
     Suspend Wait Time                          1607.0653   123.6204        121        9.3       99.9% of Response
     Dispatch Wait Time                            0.1136     0.0087        108        8.3        0.0% of Suspend
     Resource Manager Interface (RMI) elapsed time   0.0110   0.0008         26        2.0        0.0% of Response
     Resource Manager Interface (RMI) suspend time   0.0000   0.0000          0        0.0        0.0% of Suspend

  Suspend Detail                                ------------------ Suspend Time ------------------ ----- Count -----
                                                   Total     Average  %age  Graph                    Total  Average
     ICDELAY   Interval Control (IC) wait time   1239.9434   95.3803  77.2% |***************             7      0.5
     RLSWAIT   RLS File I/O wait time             318.4543   24.4965  19.8% |***                        13      1.0
     N/A       Other Wait Time                     48.6477    3.7421   3.0% |                            24      1.8
     JCIOWTT   Journal I/O wait time                0.0067    0.0005   0.0% |                             6      0.5
     IRIOWTT   MRO link wait time                   0.0065    0.0005   0.0% |                            22      1.7
     GVUPWAIT  Give up control wait time            0.0055    0.0004   0.0% |                            20      1.5
     DSPDELAY  First dispatch wait time             0.0007    0.0001   0.0% |                            13      1.0
     DSCHMDLY  Redispatch wait time caused by change-TCB mode  0.0004  0.0000  0.0% |                    16      1.2
--------------------------------------------------------------------------------------------------------------------
```

24

This is the Wait Analysis report created from the CMF performance data that was captured at the time of the poor response time, when the original alert was raised.

The summary section of the Wait Analysis report shows an overall analysis of the transaction performance including Response time, Dispatch and CPU time, Suspend time, and so on. In our scenario it shows that transaction ID LOCK spent the major portion of the response time suspended by the CICS dispatcher.

The detail section of the Wait Analysis report gives a more detailed analysis of the type of CICS waits that have contributed to our transaction suspend time. In this report we can see that our transaction has spent the majority of its suspend time in either an Interval Control wait or RLS File I/O wait. The application is not releasing the record (we can see this from the long delay in the File I/O wait time) so we'll need to investigate why the application is behaving in that way.

On the next slide you'll see an example of the Transaction File Usage Summary report which can help us identify the filenames that were used by our transaction, to help the application programmers in their further investigation of the problem…….

File Usage Summary Report

```
V1R4M0                                    CICS Performance Analyzer
                                        Transaction File Usage Summary

FILE0001 Printed at 11:23:00 11/02/2005   Data from 15:05:40 10/24/2005 to 15:52:01 10/24/2005   APPLID IYK2ZFV1    Page     1


                            ********************* FC Calls ********************* ******** I/O Waits ******* AccMeth
Tran            #Tasks        Get      Put     Browse    Add     Delete   Total     File      RLS     CFDT   Requests
----            -------      -------- -------- -------- -------- -------- -------- -------- -------- -------- --------
LOCK               0

                            ********************* FC Calls ********************* ******** I/O Waits ******* AccMeth
      File      #Tasks        Get      Put     Browse    Add     Delete   Total     File      RLS     CFDT   Requests
---------------- -------     -------- -------- -------- -------- -------- -------- -------- -------- -------- --------
      TESTKSDS       12 Elapse Avg 16.0119   .0003    .0000    .0000    .0000  16.0122    .0000  15.9835    .0000
                        Max 32.3834   .0034    .0000    .0000    .0000  32.3834    .0000  32.3817    .0000
                      Count Avg    1        0        0        0        0        1        0        1        0        2
                            Max    2        1        0        0        0        4        0        2        0        4


  V1R4M0                                    CICS Performance Analyzer
                                        Transaction File Usage Summary

FILE0001 Printed at 11:23:00 11/02/2005   Data from 15:05:40 10/24/2005 to 15:52:01 10/24/2005   APPLID IYK2ZFV2    Page     2


                            ********************* FC Calls ********************* ******** I/O Waits ******* AccMeth
Tran  File      #Tasks        Get      Put     Browse    Add     Delete   Total     File      RLS     CFDT   Requests
--- ---------------- -------  -------- -------- -------- -------- -------- -------- -------- -------- -------- --------
LOCK TESTKSDS        7 Elapse Avg 22.9281   .0000    .0000    .0000    .0000  22.9281    .0000  22.9016    .0000
                        Max 32.4540   .0000    .0000    .0000    .0000  32.4540    .0000  32.4533    .0000
                      Count Avg    1        0        0        0        0        1        0        1        0        2
                            Max    1        0        0        0        0        2        0        1        0        2
```

25

This is the Transaction File Usage Summary report created from the CMF performance and resource data that was captured at the time of the poor response time. It gives more detail on the filenames used by our transaction and in our scenario we can see that our transaction ID, LOCK, accessed just the one filename TESTKSDS and the type of file request(s) that were issued, in our case it was EXEC CICS READ (or Get) requests, and we can see that the average and maximum time these requests took is very high ….

In our particular scenario shown here, we created VSAM RLS lock waits for which we had defined an OMEGAMON situation alert and here we can see through the CICS PA reports its overall effect on the transaction response time. ….. This information will give the application development team a flying start to analysing why the LOCK application is creating a performance problem when GETting the VSAM file TESTKSDS.

In a more realistic CICS Production environment where the transaction workload would be significantly higher we can see how various CICS PA reports can be used to report and analyse the impact of this situation on our overall CICS system performance – and shortcircuit a lot of the painstaking analysis work that the application teams would normally have to perform to improve the situation.

Summary

• We've now dealt with a single situation that was raised during the day to day operation of our systems

• We investigated the problem further to fully understand the nature of the issue and what it's impact has been on our operations

• Having completely analyzed the problem, we are in a position to recommend further investigation by the Application team, supported by valuable diagnostic information.

For more information …
http://www-306.ibm.com/software/tivoli/products/omegamon-xe-cics/
http://www.ibm.com/cics/

C I C S
Lifecycle Tools

26

So to summarize:-

OMEGAMON XE for CICS on z/OS provides the ability to rapidly identify bottlenecks, deadlocks and excessive waits for CICS resources such as VSAM files, and to resolve the situation immediately – and we used it to deal, quickly and efficiently, with an out-of-line situation that was impacting our business.

CICS Performance Analyzer V1.4 provides us with the ability to further investigate single or multiple events that occur in our systems, and to identify improvements to our overall system performance. We used it to drill down and investigate the underlying causes of the problem so that we could prevent it happening again.

References:-

Using IBM Tivoli OMEGAMON XE for CICS on z/OS SC32-9424-00

CICS Performance Analyzer for z/OS User's Guide, SC34-6307

CICS Performance Analyzer for z/OS Report Reference, SC34-6308

CICS Performance Analyzer for z/OS, SG24-6063 - Redbook