

## 1. Introduction

Initial Observations.

Why Tune?

Response time 'end-to-end'.

Network Time

Internal Response time

DASD Response time

Non-CICS Component Tuning

Observation

Methodology

Data Capture Tools

Benchmarking Tools

Modelling Tools

CICS Requested/EOD Stats

STAT Transaction

What Resources To Tune

CPU

I/Os

Network I/Os

Serialisation!

## 2. KE, XM and Dispatcher

TCBs before TS 1.3

TCBs after TS 1.3

SIT Parameters

KE\_TASK sizes

Task Attach – Queued

MXT Issues

Task Attach – Success

Ways of starting work

First Dispatch

Region Exit Interval ICV

Dispatcher Chains

Context Switching

QR Subdispatching

IPCS AP=1 / XM=1

STAT XM Output

IPCS DS=1

STAT DS Output

PRTYAGE

## 3. Storage Management

Address Space Layout

Prefixed Save Area (PSA)

System Queue Area and ESQA

Link Pack Area and ELPA

MVS/ESA Common Service Area

- Private and Extended Private Area
- (E)LPA & (E)CSA
- LSQA
- Scheduler Work Area (SWA)
- Tuning High Private
- CICS Region Below & Above the line
- MVS Storage above the CICS Region
- MVS Storage within the CICS Region
- Storage Fragmentation
- Increase The Size Of The DSAs
- DSALIM & EDSALIM
- Eight possible DSAs
- DSAs and SOS
- STAT and IPCS Output for SM

#### **4. Storage Protection & TRANISO**

- Storage Violations
- Storage Keys
- Transaction Isolation
- Performance Cost
- “Huge Regions I’ll never wangle that!”
- Subspace Stats.

#### **5. LE/370**

- CEEROPT/CEECOPT
- AUTODST
- RUWAPool
- CLER Txn.

#### **6. CICS/VSAM**

- CEDA Def File (4)
- CEDA Def Lsrpool (3)
- Hiperspace Exploitation
- Locking Non-RLS VSAM
- CICS/TS Update 2.2 Onward
- Locking RLS VSAM
- Non-RLS Deadly Embrace – CI
- Non-RLS Deadly Embrace – Record
- Avoiding Non-RLS Deadlocks
- RLS Deadlocks
- Bad News VSAM Stuff!
- Premature CA Splits
- Lsrpool and File Stats.

#### **7. CICS Data Tables**

- CFDTs
- Shared Data Tables

## **8. Terminal Control**

- Round Trip Time**
- High Performance Option (HPO)**
- RAPOOL**
- RAMAX**
- EOD VTAM Stats**
- SNA Chaining**
- SENDSIZE/RECEIVESIZE**
- Sample VIO Trace**
- IOAREALEN**
- MSGINTEG**
- Autoinstall**
- Data Compression**
- Statistics**
- ICVTSD**
- Checklist**

## **9. Intercommunication**

- Define Connection (2)**
- QUEUELIMIT**
- MAXQTIME**
- DEFine Sessions**
- Session Usage**
- Session Terminal Stats**
- System Entry Stats.**
- Workload Balancing (DFHDYP)**
- VTAM Generic Resource**
- MROLRM**
- MROBTCH**

## **10. CWS, SSL and TCPIP**

- CWS and MXT**
- 3270 Bridge**
- CEDA Def TCPIP SERVICE**
- SOCKETCLOSE**
- Backlog**
- SSLDELAY**
- SSLTCBs**
- Summary**
- Statistics**

## **11. Trace**

- Tracing at Level 1**
- CETR discussion**

## **12. Recovery Restart & Logger**

- Global Catalog Buffers**

**What is a Logstream  
UOW Chaining & Logger I/O  
Activity Keypoints & Log Trimming  
Logger Stats.**

### **13. Loader & Program Manager**

**LLA and VLF  
DEF PROGram  
SOS!  
Dynamic Program Storage Compression  
Threadsafe Discussion  
LD & PG Stats**

### **14. Temporary Storage**

**Tsmodels  
Main vs Aux  
Buffering and I/Os  
TS Affinity  
Solution 1  
Solution 2  
TS Stats**

### **15. Transient Data**

**Types of TDQ  
Intra TD Buffers  
Extrapartition  
Intrapartition  
Recovery  
TD Stats**

### **16. CICS-DB2 Interface**

**Address Space level Dispatching  
Thread Level Dispatching  
Pre and Post CICS/TS 2.2 TCBs  
CEDA Def DB2CONN, DB2ENTRY & DB2TRAN  
Accounting  
Statistics**

### **17. JAVA in CICS/TS**

**JVM Pools  
JVM Heap Storage  
Continuous & worker JVMs**

### **18. Selected SIT parms.**

**SIT parms that explicitly affect performance – full SIT in Appendix A.**

### **Appendix A.**

**Complete list of SIT parms.**

