Exploring z10 and z/OS systems using OMEGAMON XE on z/OS

Joe Winterton, IBM Tivoli OMEGAMON
josephw@us.ibm.com
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Agenda

- What is new with OMEGAMON XE on z/OS 4.2.0?
- z/OS Workloads - where is the pain today?
- Exploring one z/OS LPAR – Lets do it !
- Perplexed with your Sysplex?
- z10 - Processor's – types, shapes and sizes
- z/OS Storage – what's up with Virtual and Real?
- z/OS DASD, DASD and more DASD

Exploring your z10 and z/OS systems using OMEGAMON XE on z/OS

What is new in OMEGAMON XE on z/OS 4.2.0?

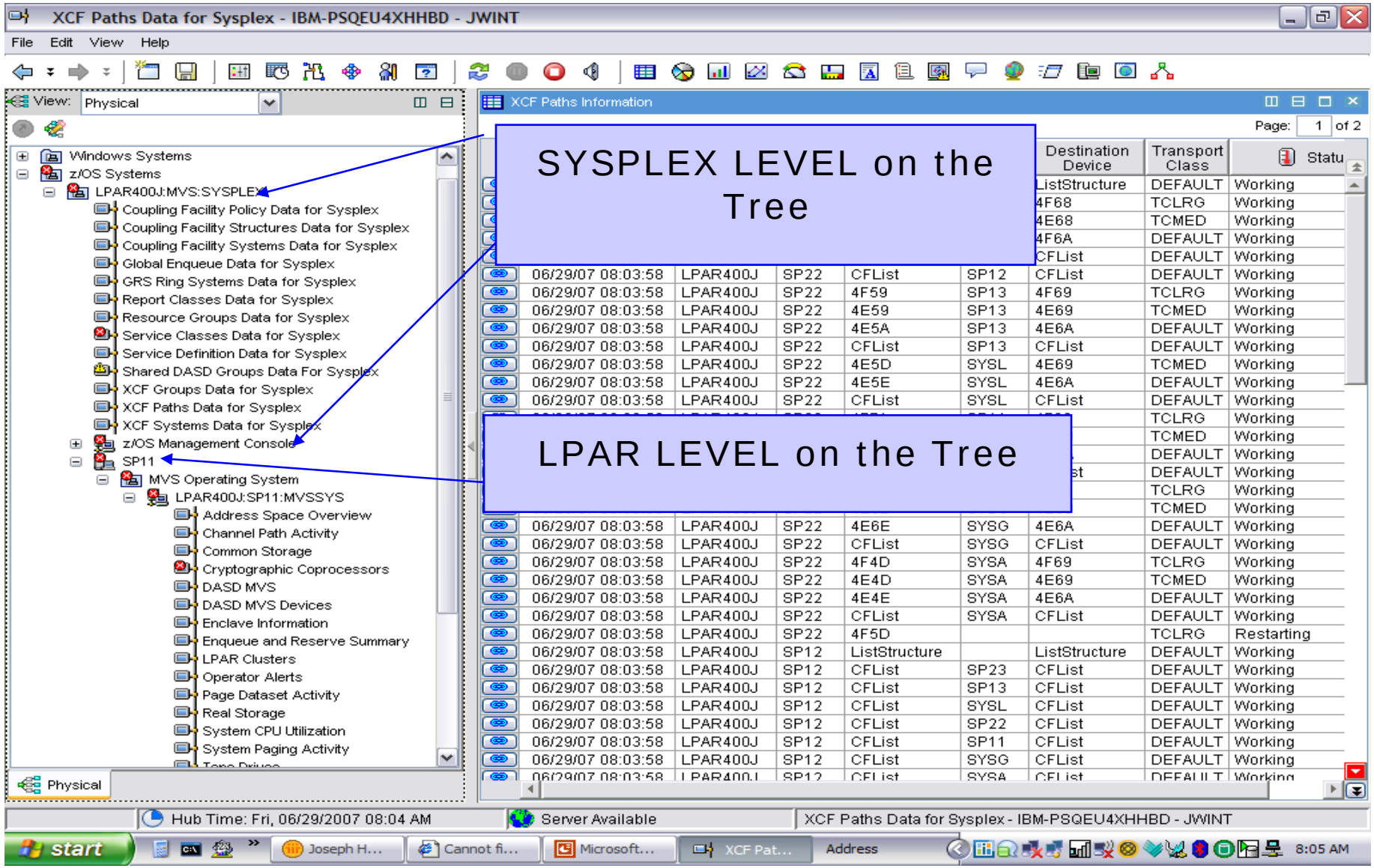
OMEGAMON XE on z/OS 4.2.0 Interim Feature 1

- Shipped November 2009
- Enhanced Critical Memory Alerts using z/OS ENF signals
- Address Space Storage by Subpool and Key and LSQA
- z/OS 1.11 Currency Support
- Other updates to HiperDispatch support, LPAR Group Unused Capacity, Work-dependent enclave support, CPU Loop Index enhancement,

OMEGAMON XE on z/OS 4.2.0 Important links:

- zAdvisor: http://www-01.ibm.com/software/tivoli/systemz-advisor/2009-12/omegamon-xe-version-420.html
- zWiki: http://www.ibm.com/developerworks/wikis/display/tivoliomegamon/Tivoli%20OMEGAMON%20XE%20on%20zOS
- Information Center: http://publib.boulder.ibm.com/infocenter/tivihelp/v15r1/topic/com.ibm.omegamon_xezos.doc/welcome.htm

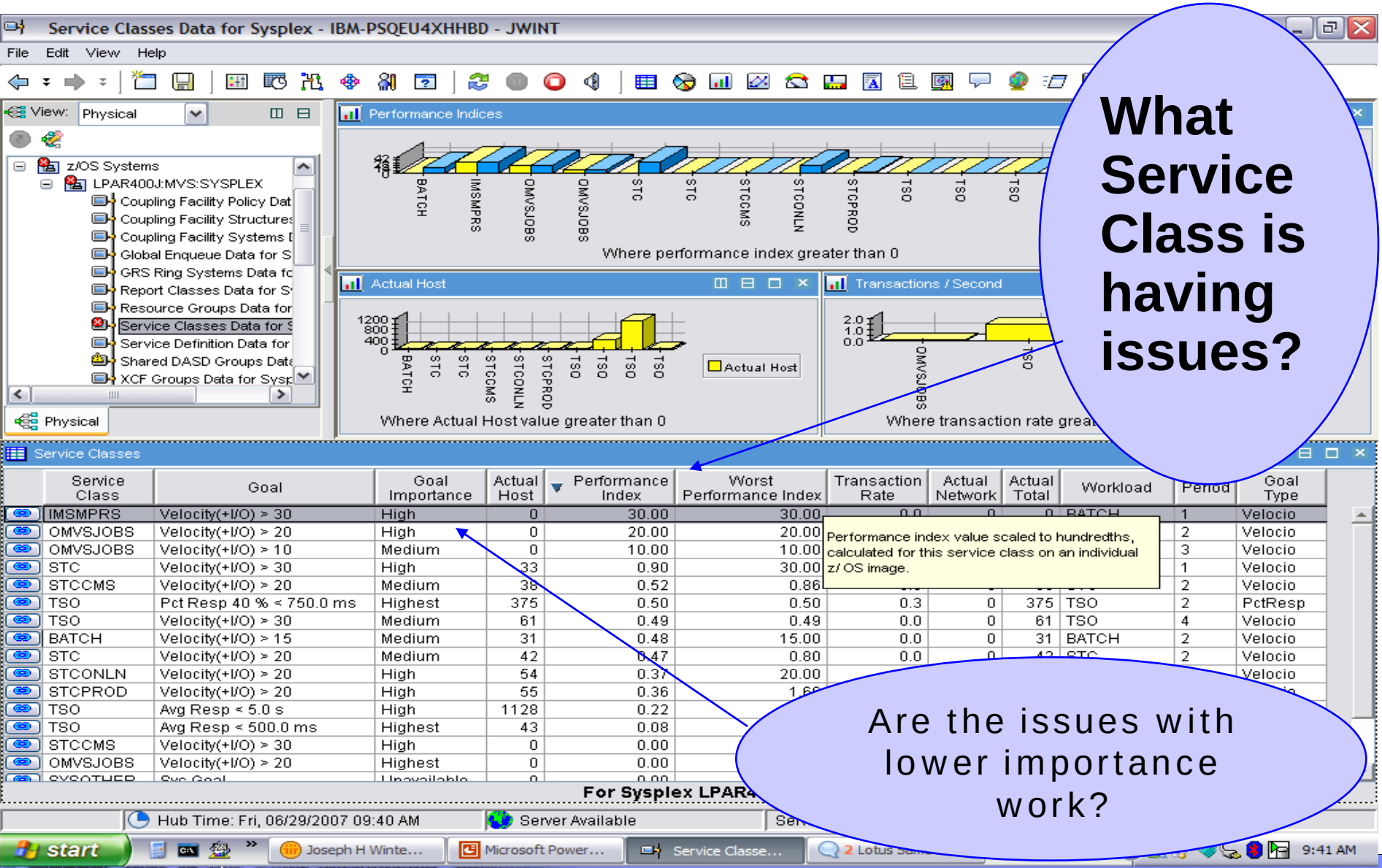
When Exploring – may need GPS/map to help navigate



Exploring your z10 and z/OS systems using OMEGAMON XE on z/OS

z/OS Workloads – where is our pain today?

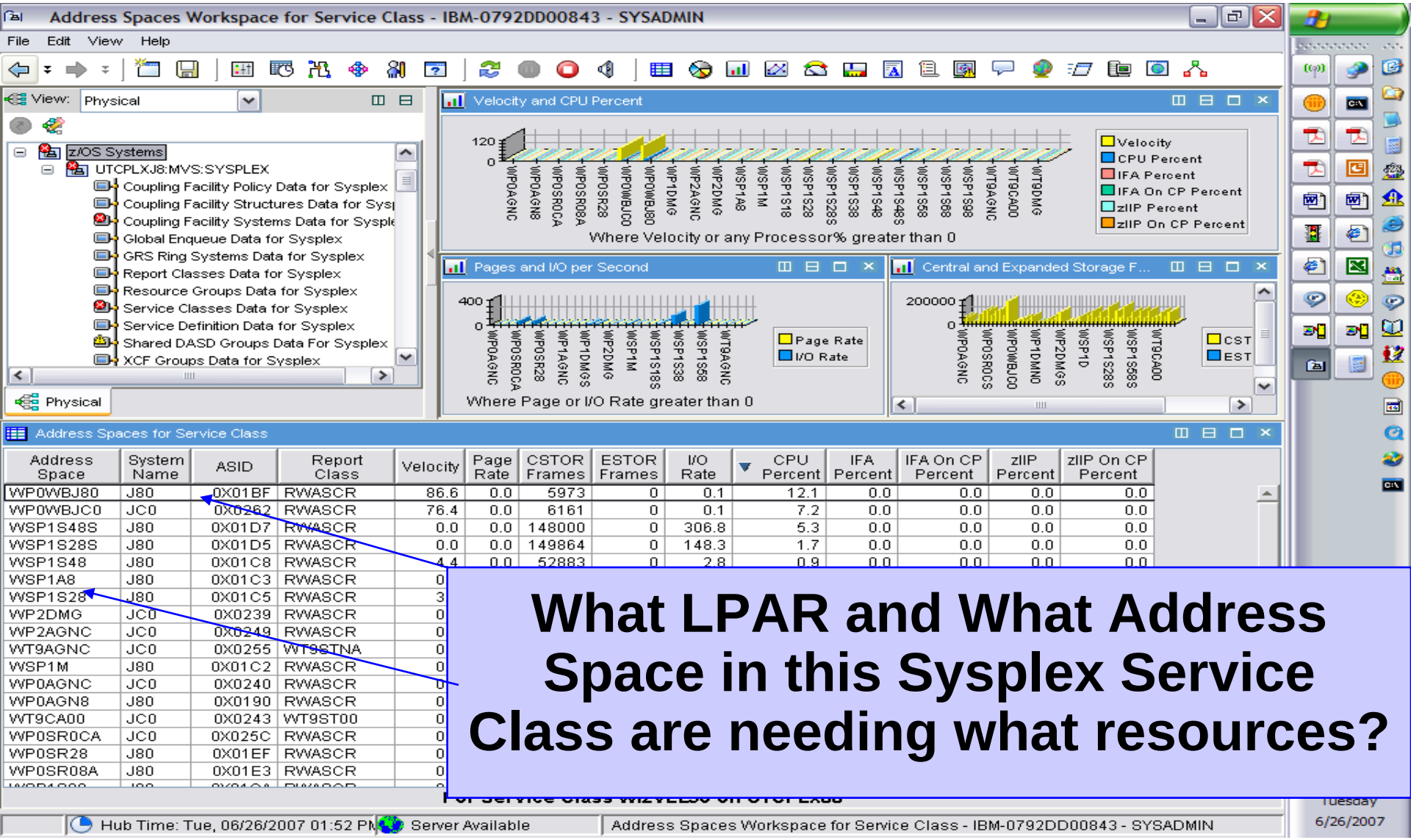
Sysplex Service Class – Pain identification



What Service Class is having issues?

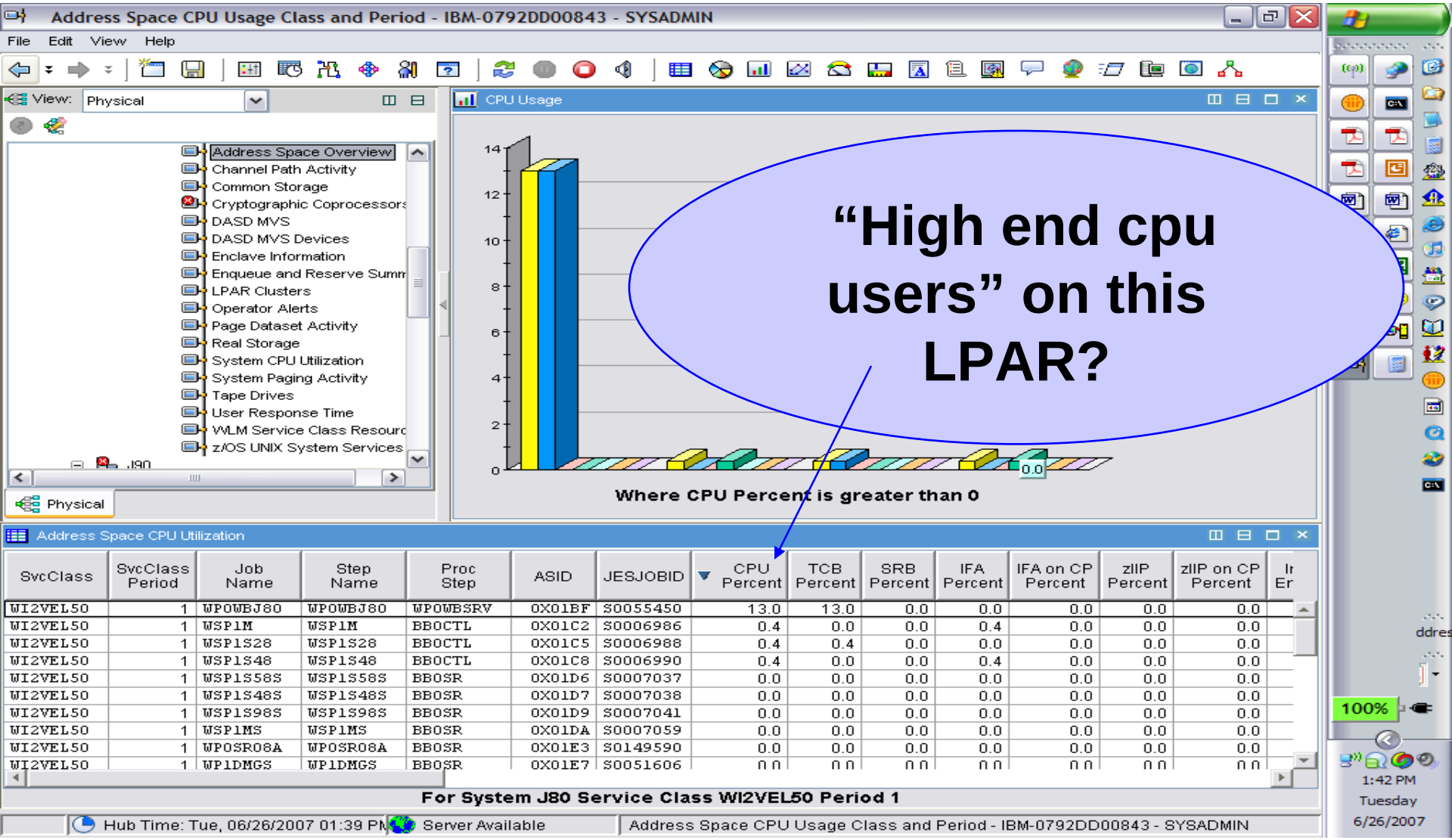
Are the issues with lower importance work?

Service Class – Sysplex WebSphere Addr Spaces

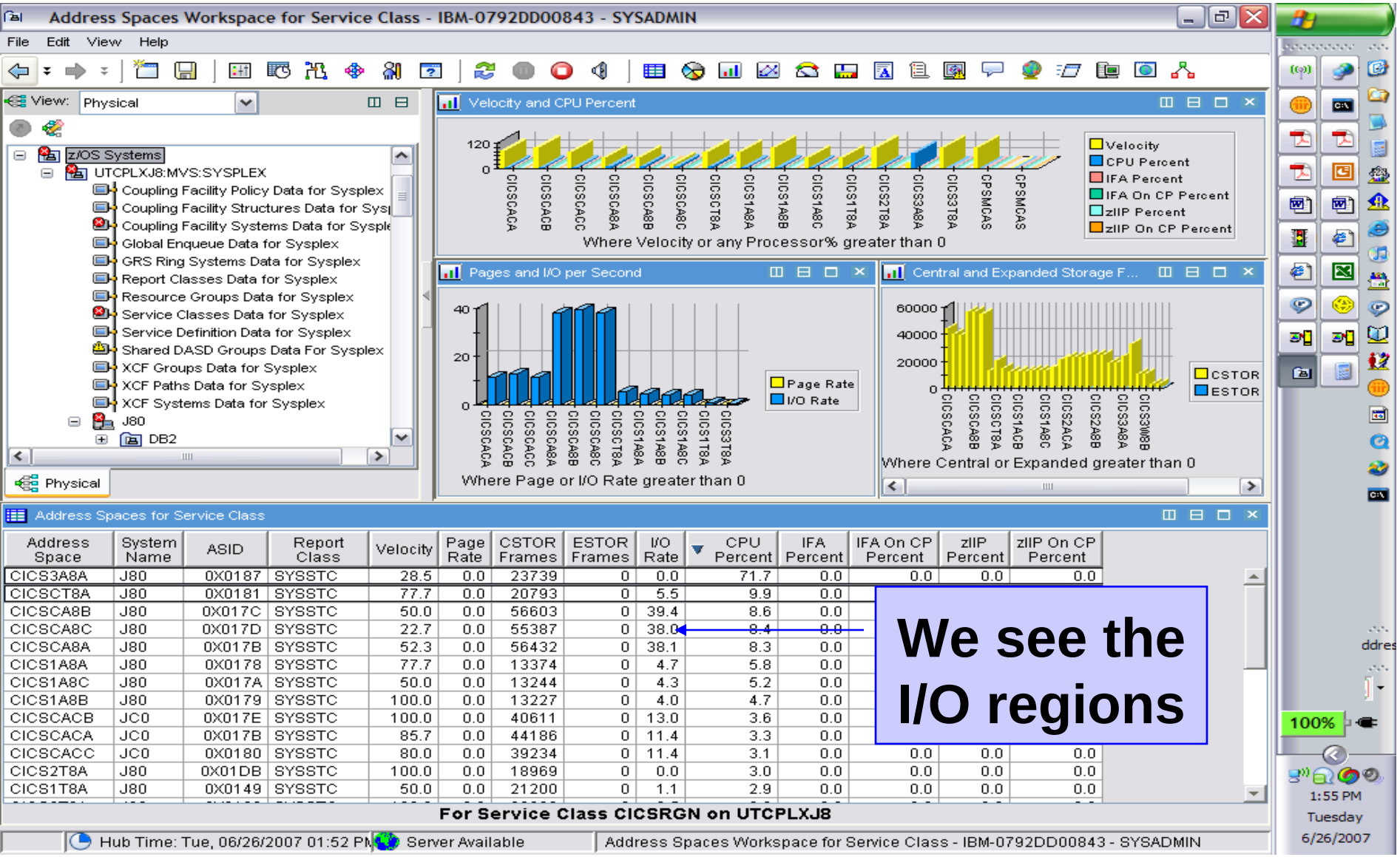


What LPAR and What Address Space in this Sysplex Service Class are needing what resources?

Service Class LPAR WebSphere Addr Space CPU



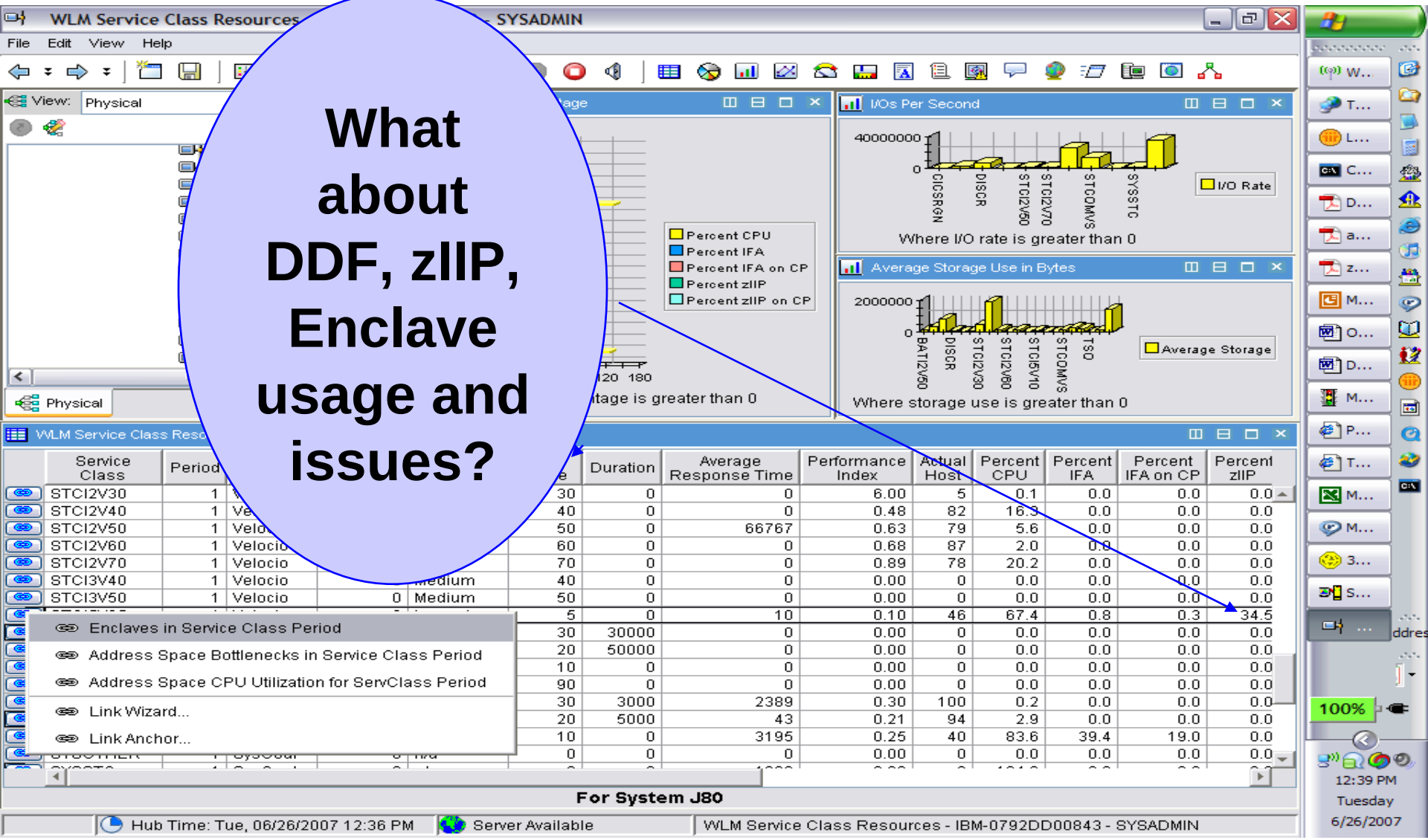
Service Class – Sysplex CICS Addr Spaces CPU



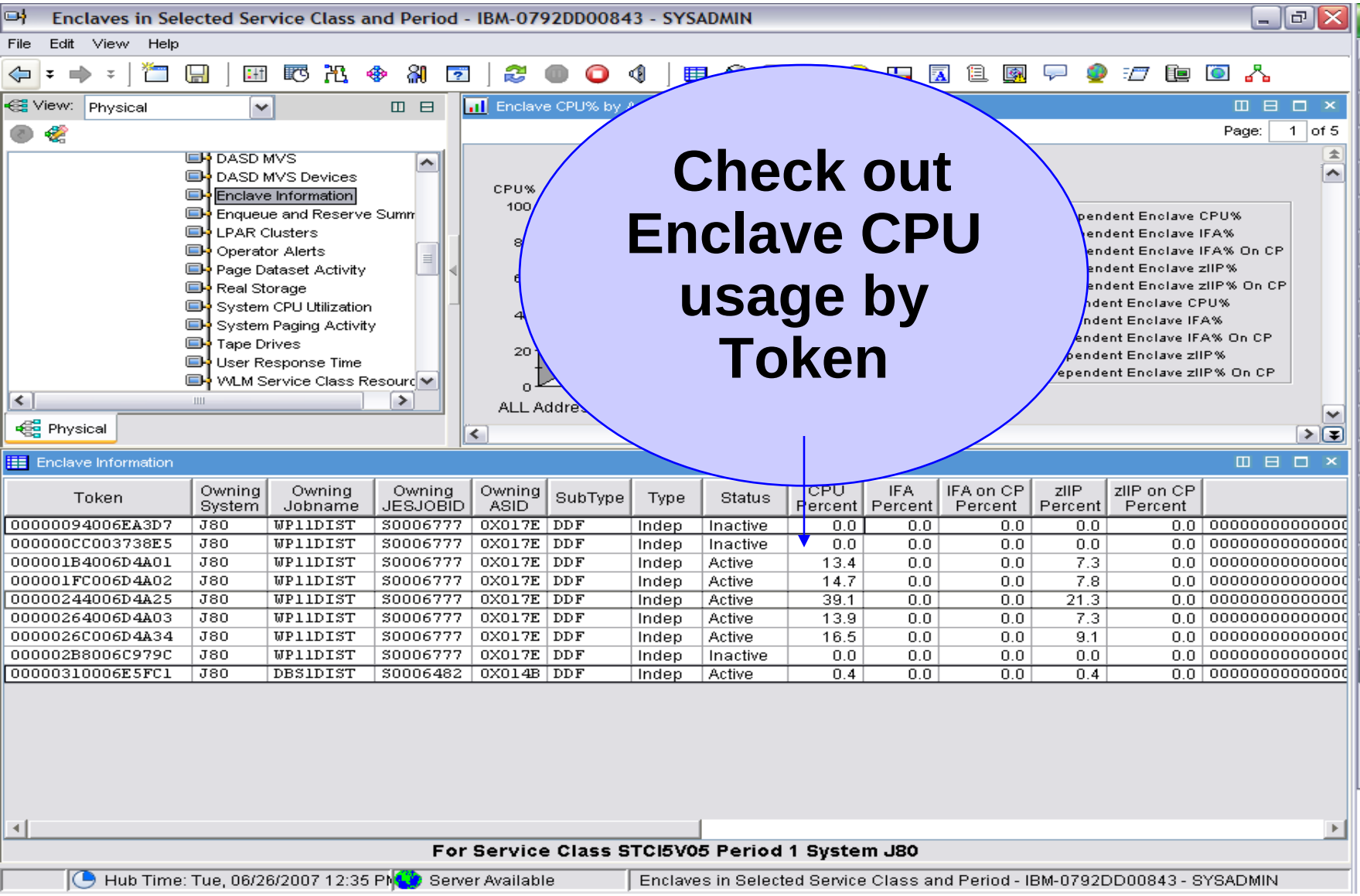
Address Space	System Name	ASID	Report Class	Velocity	Page Rate	CSTOR Frames	ESTOR Frames	I/O Rate	CPU Percent	IFA Percent	IFA On CP Percent	zIIP Percent	zIIP On CP Percent
CICS3A8A	J80	0X0187	SYSSTC	28.5	0.0	23739	0	0.0	71.7	0.0	0.0	0.0	0.0
CICSCT8A	J80	0X0181	SYSSTC	77.7	0.0	20793	0	5.5	9.9	0.0			
CICSCA8B	J80	0X017C	SYSSTC	50.0	0.0	56603	0	39.4	8.6	0.0			
CICSCA8C	J80	0X017D	SYSSTC	22.7	0.0	55387	0	38.0	8.4	0.0			
CICSCA8A	J80	0X017B	SYSSTC	52.3	0.0	56432	0	38.1	8.3	0.0			
CICS1A8A	J80	0X0178	SYSSTC	77.7	0.0	13374	0	4.7	5.8	0.0			
CICS1A8C	J80	0X017A	SYSSTC	50.0	0.0	13244	0	4.3	5.2	0.0			
CICS1A8B	J80	0X0179	SYSSTC	100.0	0.0	13227	0	4.0	4.7	0.0			
CICSCACB	JC0	0X017E	SYSSTC	100.0	0.0	40611	0	13.0	3.6	0.0			
CICSCACA	JC0	0X017B	SYSSTC	85.7	0.0	44186	0	11.4	3.3	0.0			
CICSCACC	JC0	0X0180	SYSSTC	80.0	0.0	39234	0	11.4	3.1	0.0	0.0	0.0	0.0
CICS2T8A	J80	0X01DB	SYSSTC	100.0	0.0	18969	0	0.0	3.0	0.0	0.0	0.0	0.0
CICS1T8A	J80	0X0149	SYSSTC	50.0	0.0	21200	0	1.1	2.9	0.0	0.0	0.0	0.0

We see the I/O regions

Service Class – LPAR Navigation to Enclaves

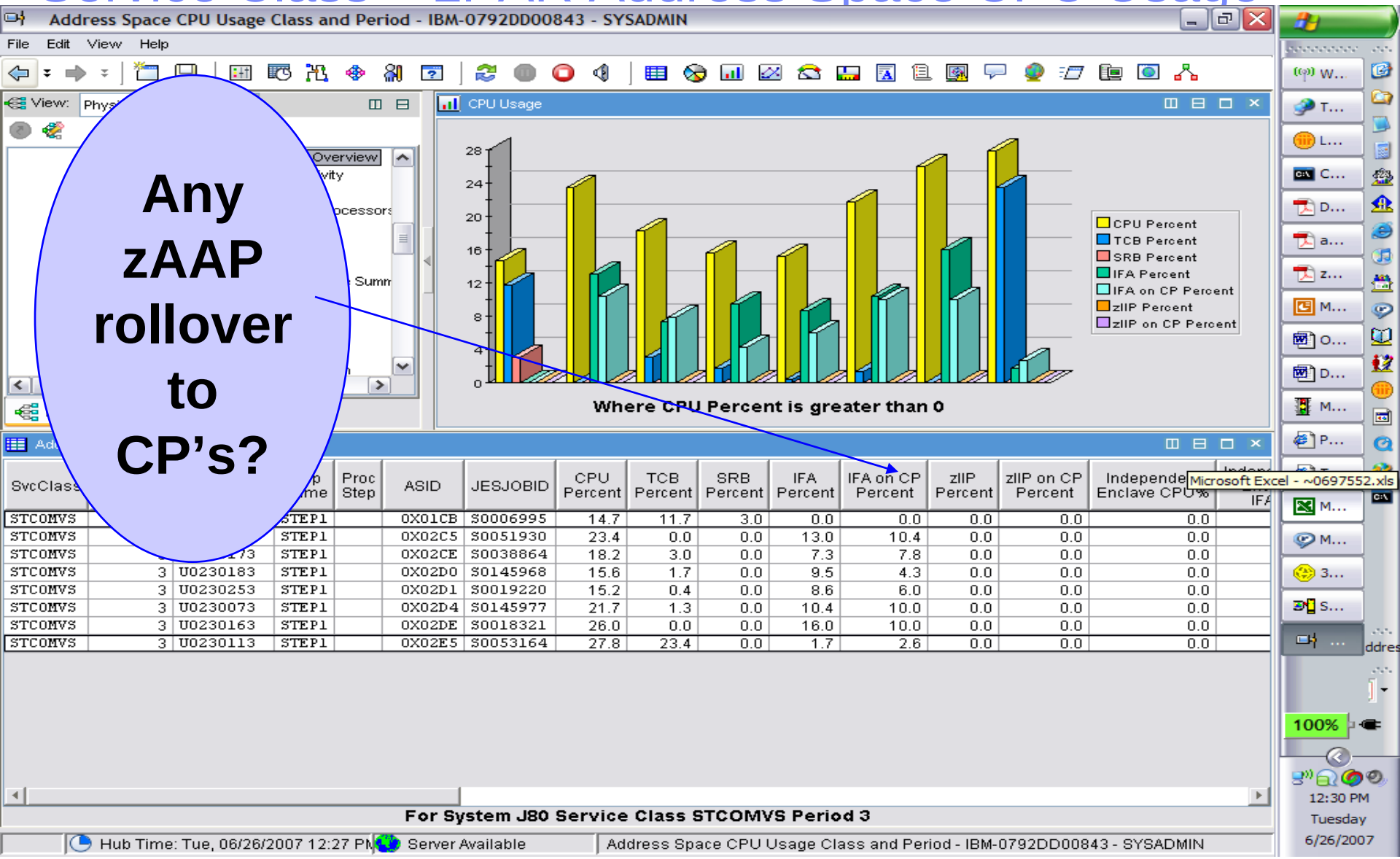


Service Class – LPAR DDF Enclave CPU usage



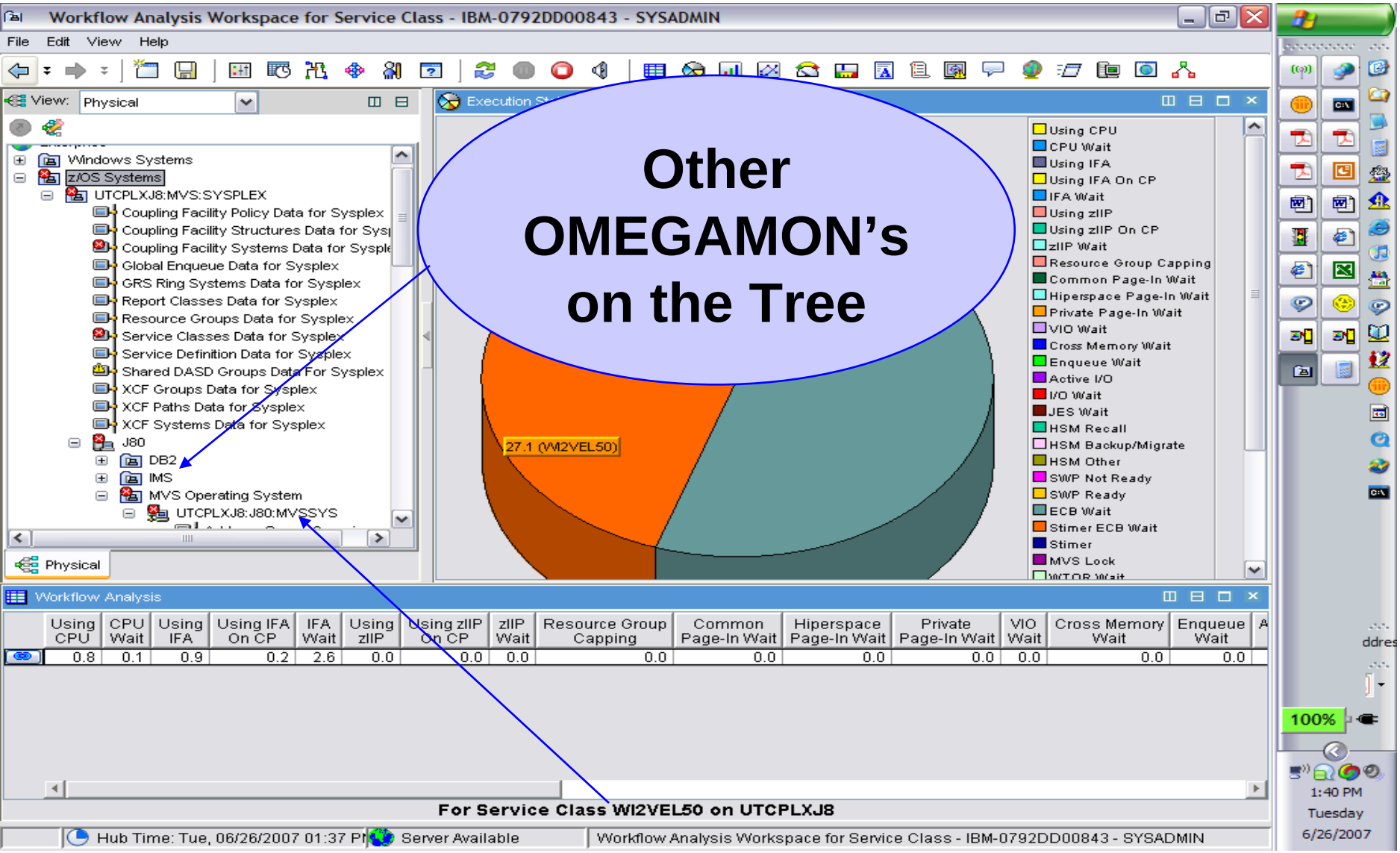
Token	Owning System	Owning Jobname	Owning JESJOBID	Owning ASID	SubType	Type	Status	CPU Percent	IFA Percent	IFA on CP Percent	zIIP Percent	zIIP on CP Percent	
00000094006EA3D7	J80	WP11DIST	S0006777	0X017E	DDF	Indep	Inactive	0.0	0.0	0.0	0.0	0.0	00000000000000
000000CC003738E5	J80	WP11DIST	S0006777	0X017E	DDF	Indep	Inactive	0.0	0.0	0.0	0.0	0.0	00000000000000
000001B4006D4A01	J80	WP11DIST	S0006777	0X017E	DDF	Indep	Active	13.4	0.0	0.0	7.3	0.0	00000000000000
000001FC006D4A02	J80	WP11DIST	S0006777	0X017E	DDF	Indep	Active	14.7	0.0	0.0	7.8	0.0	00000000000000
00000244006D4A25	J80	WP11DIST	S0006777	0X017E	DDF	Indep	Active	39.1	0.0	0.0	21.3	0.0	00000000000000
00000264006D4A03	J80	WP11DIST	S0006777	0X017E	DDF	Indep	Active	13.9	0.0	0.0	7.3	0.0	00000000000000
0000026C006D4A34	J80	WP11DIST	S0006777	0X017E	DDF	Indep	Active	16.5	0.0	0.0	9.1	0.0	00000000000000
000002B8006C979C	J80	WP11DIST	S0006777	0X017E	DDF	Indep	Inactive	0.0	0.0	0.0	0.0	0.0	00000000000000
00000310006E5FC1	J80	DBS1DIST	S0006482	0X014B	DDF	Indep	Active	0.4	0.0	0.0	0.4	0.0	00000000000000

Service Class – LPAR Address Space CPU Usage

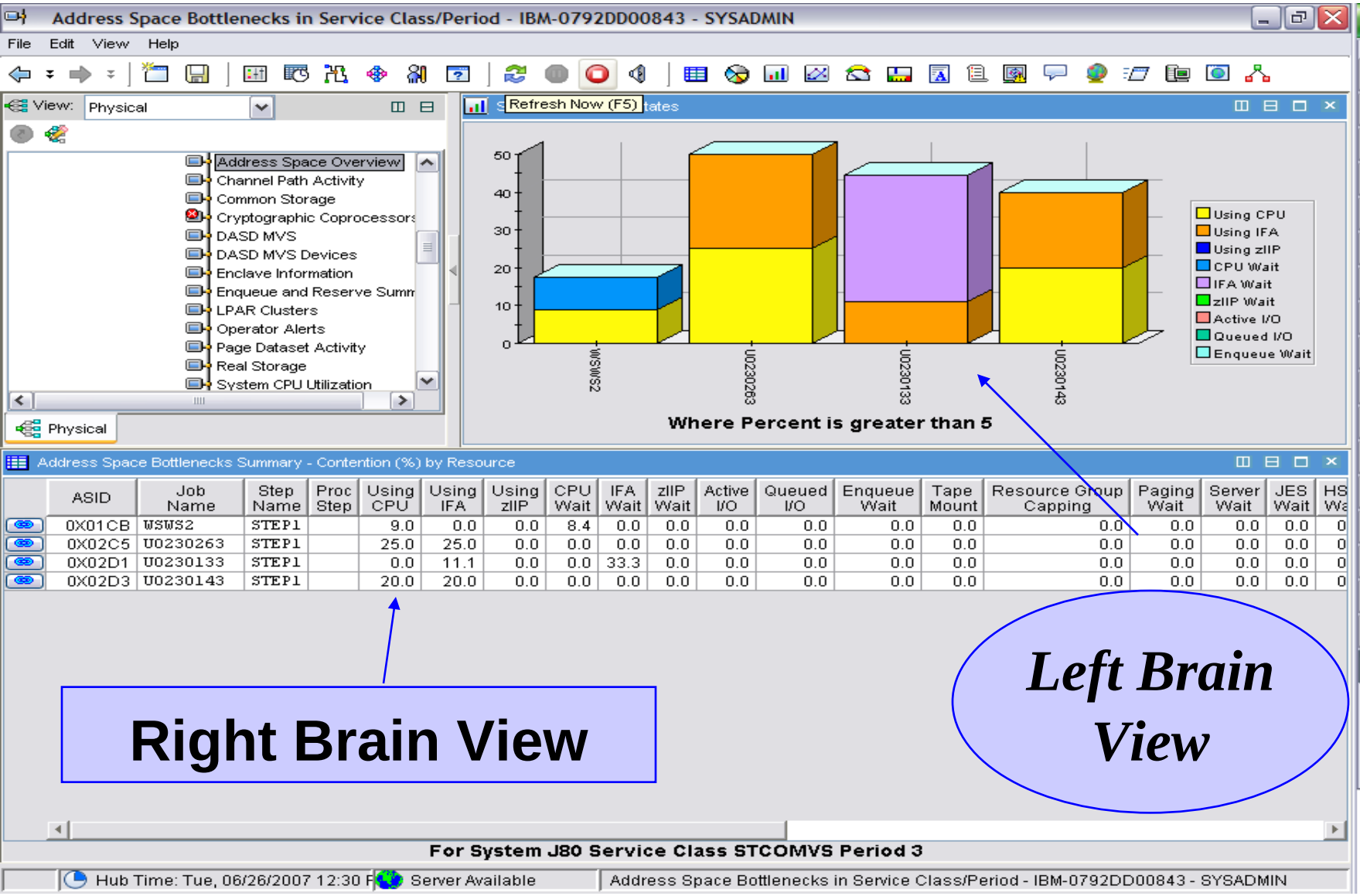


SvcClass			Proc Step	ASID	JESJOBID	CPU Percent	TCB Percent	SRB Percent	IFA Percent	IFA on CP Percent	zIIP Percent	zIIP on CP Percent	Independe Enclave CPU%
STCOMVS		STEP1		0X01CB	S0006995	14.7	11.7	3.0	0.0	0.0	0.0	0.0	0.0
STCOMVS		STEP1		0X02C5	S0051930	23.4	0.0	0.0	13.0	10.4	0.0	0.0	0.0
STCOMVS		STEP1		0X02CE	S0038864	18.2	3.0	0.0	7.3	7.8	0.0	0.0	0.0
STCOMVS	3	U0230183	STEP1	0X02D0	S0145968	15.6	1.7	0.0	9.5	4.3	0.0	0.0	0.0
STCOMVS	3	U0230253	STEP1	0X02D1	S0019220	15.2	0.4	0.0	8.6	6.0	0.0	0.0	0.0
STCOMVS	3	U0230073	STEP1	0X02D4	S0145977	21.7	1.3	0.0	10.4	10.0	0.0	0.0	0.0
STCOMVS	3	U0230163	STEP1	0X02DE	S0018321	26.0	0.0	0.0	16.0	10.0	0.0	0.0	0.0
STCOMVS	3	U0230113	STEP1	0X02E5	S0053164	27.8	23.4	0.0	1.7	2.6	0.0	0.0	0.0

LPAR WebSphere Workflow Analysis



Service Class – LPAR Address Space Bottlenecks



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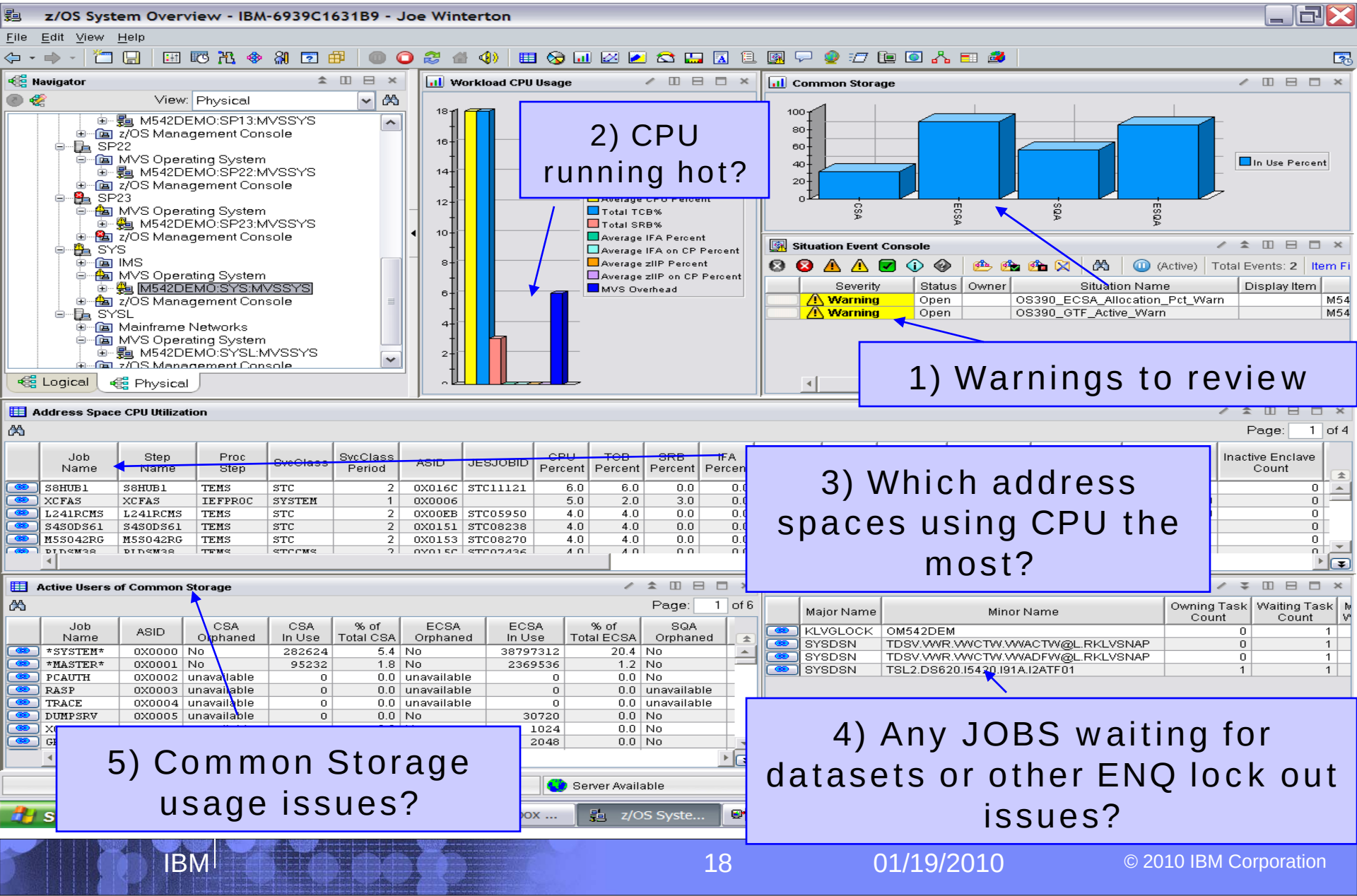
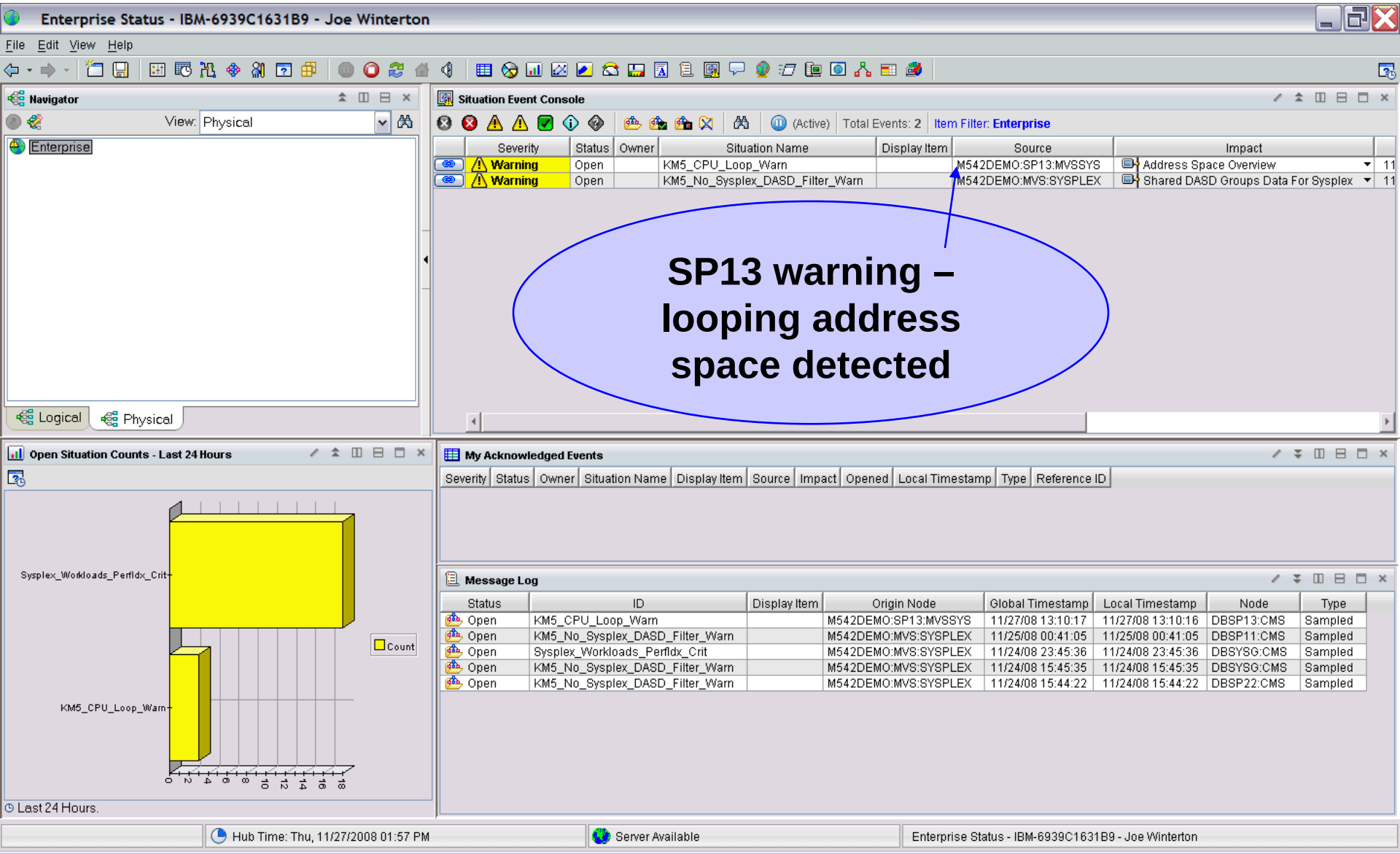
Exploring one z/OS LPAR – Lets do it !

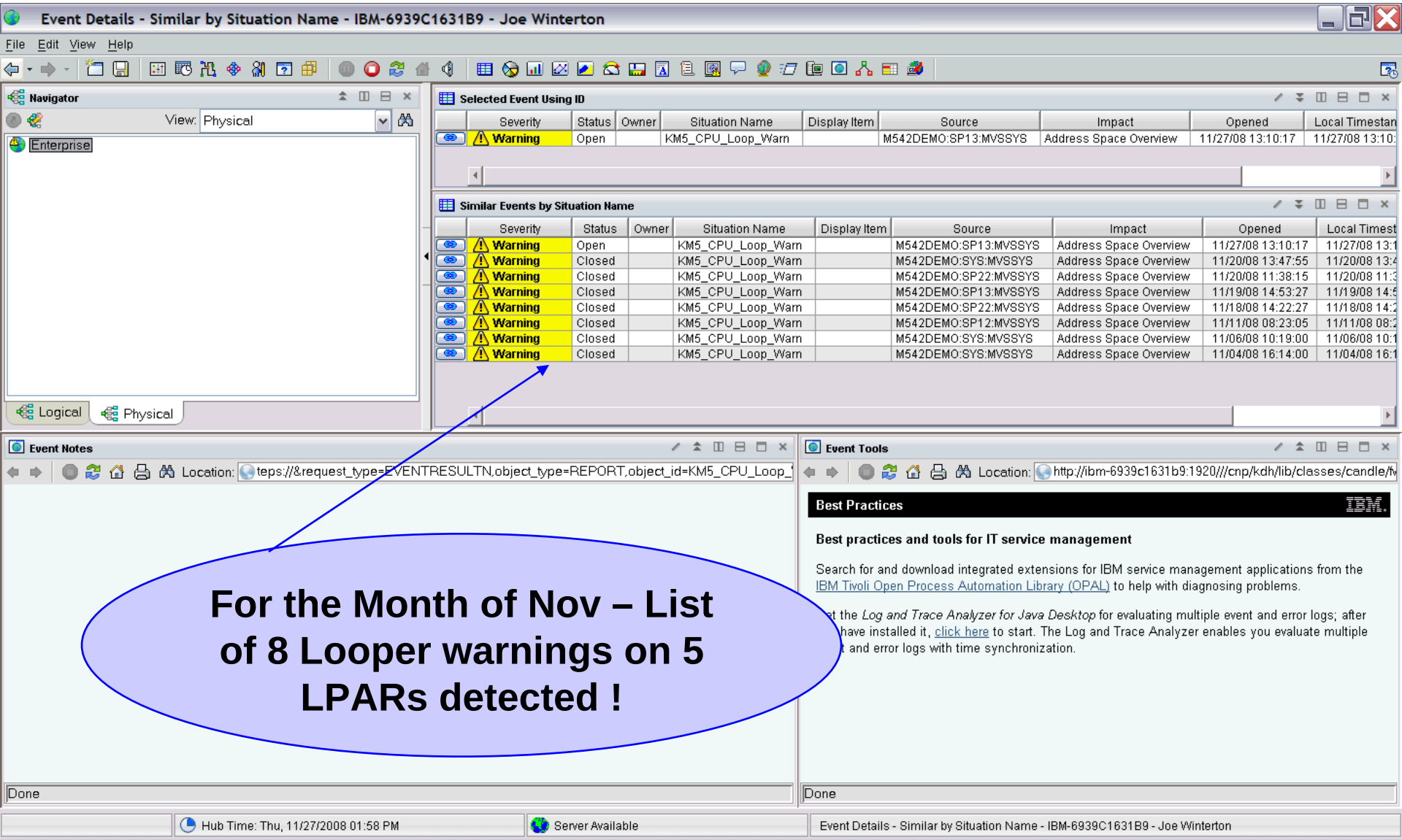
z/OS LPAR/System 4.2.0 Health workspace



CPU Loop Warning alert – new in 4.2.0:

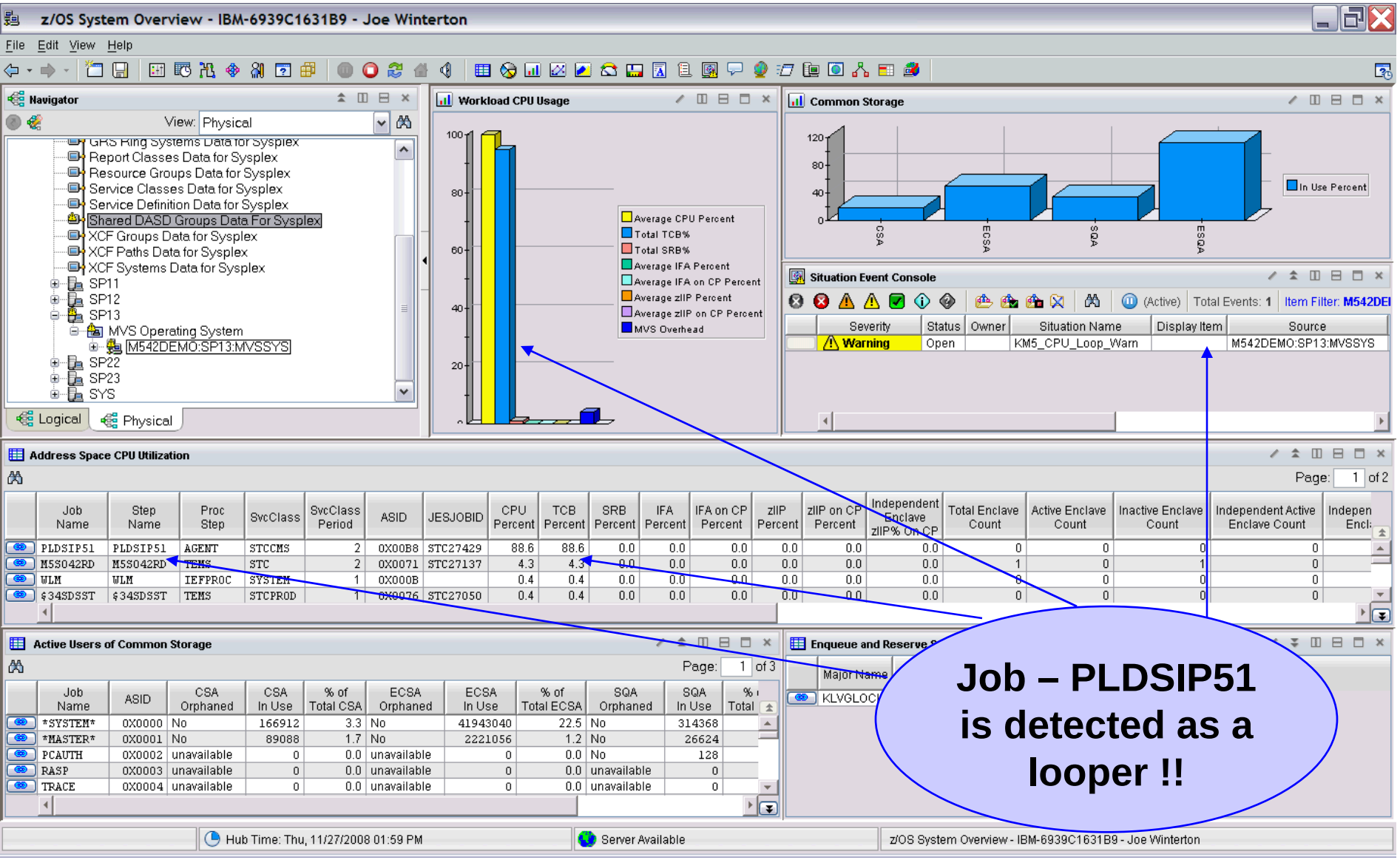


Development Systems = Target Rich Environment:

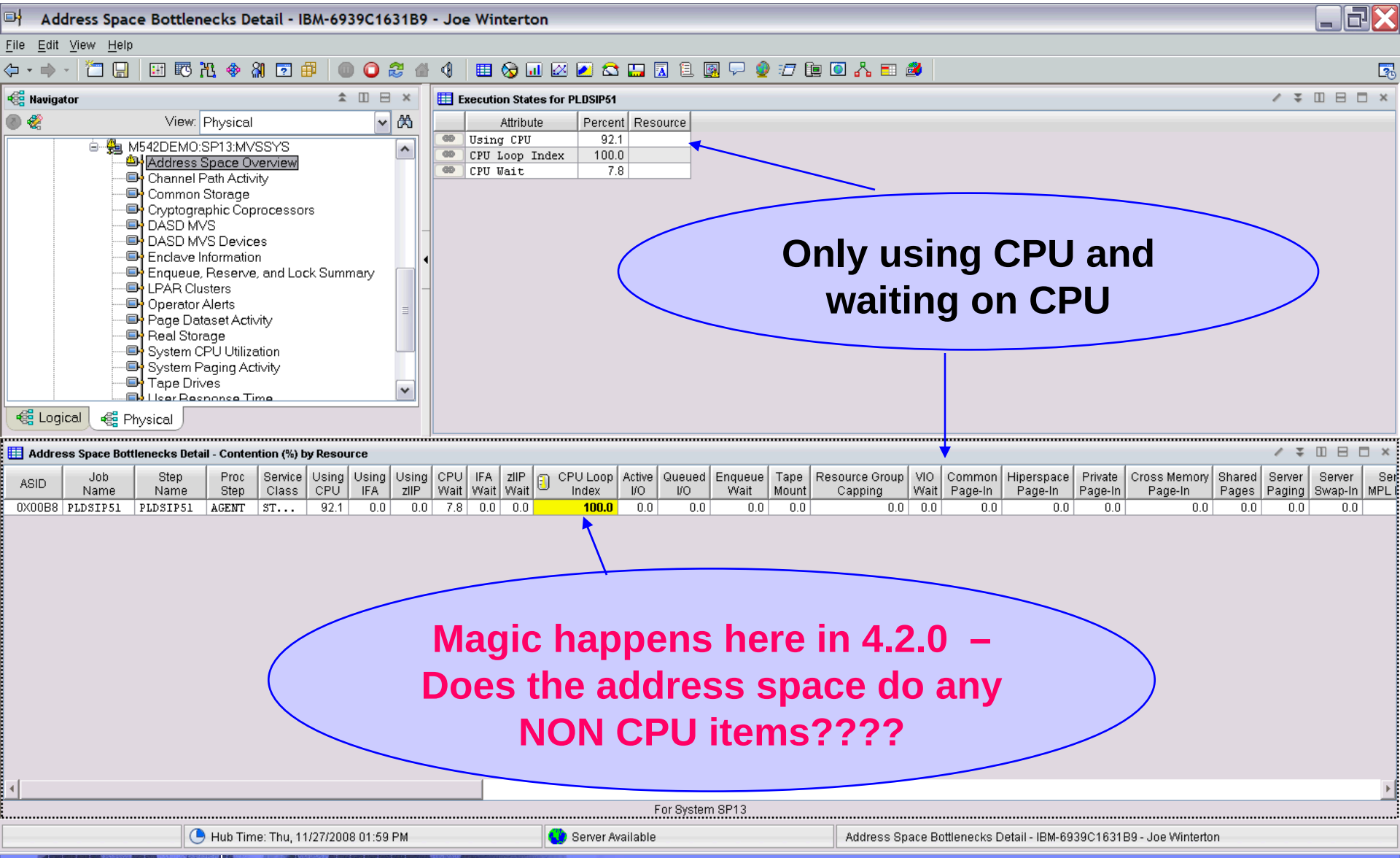


For the Month of Nov – List of 8 Looper warnings on 5 LPARs detected !

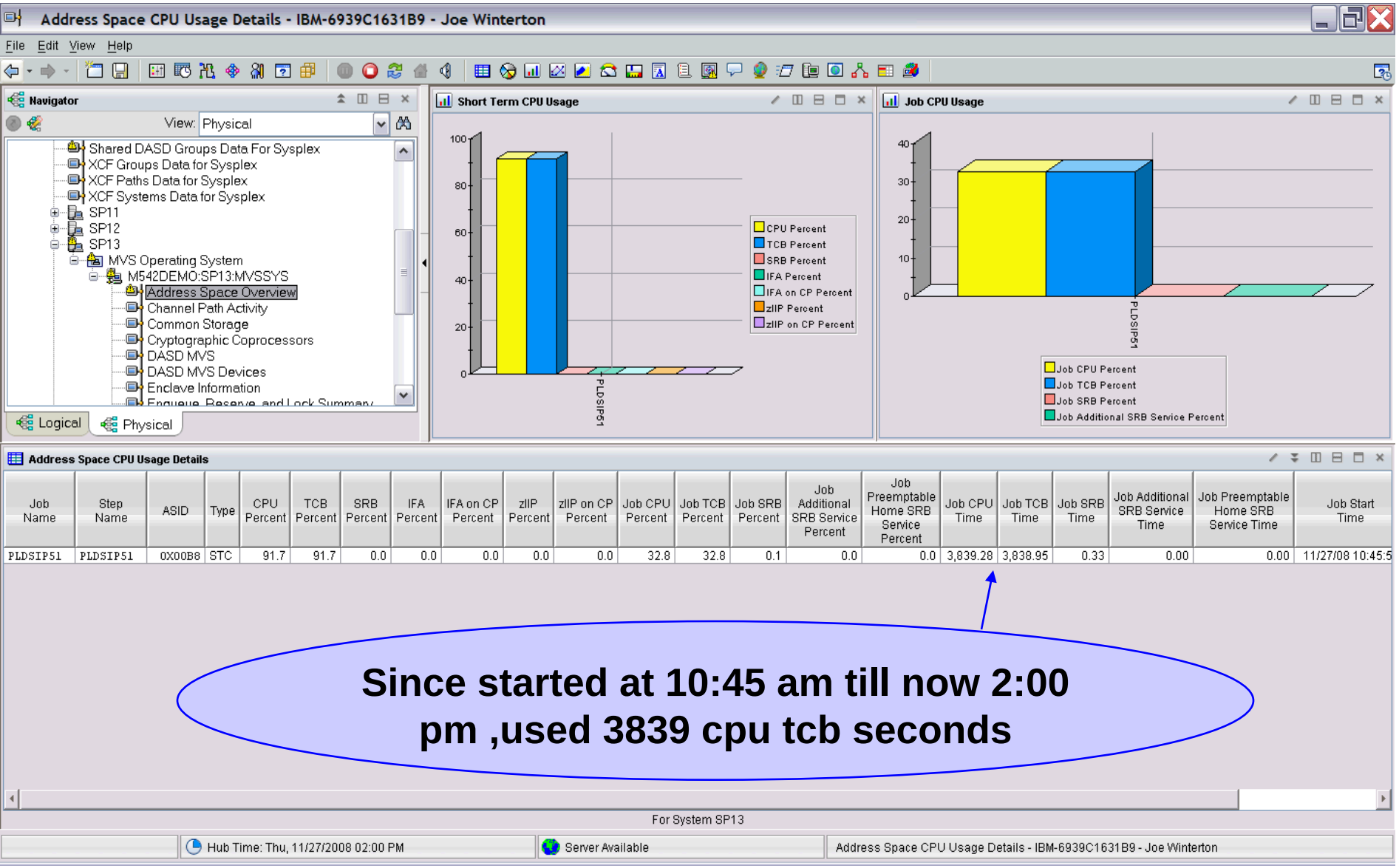
LPAR – SP13 – JOB = PLDSIP51:



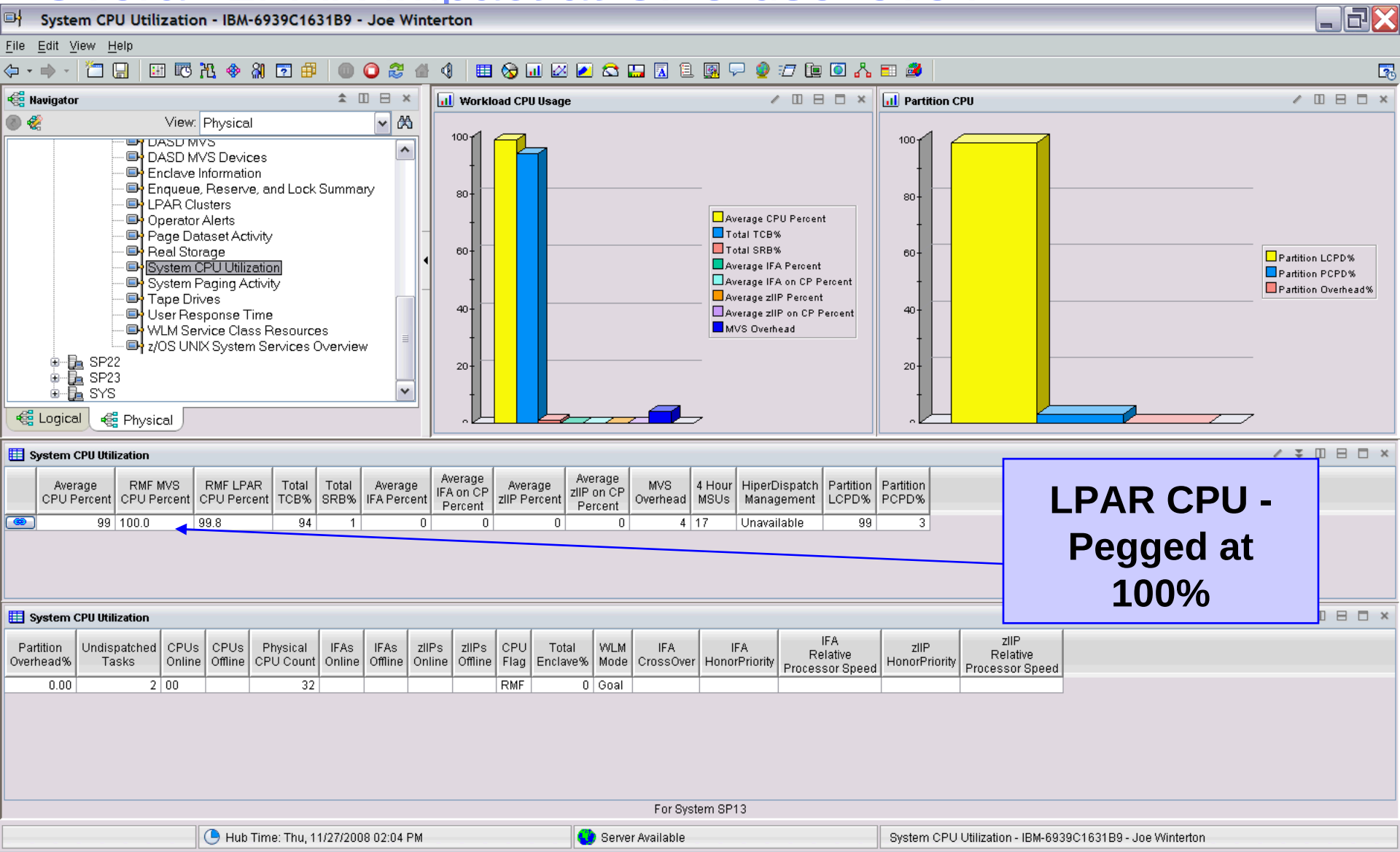
JOB – PDLSIP51 – Wait/use details:



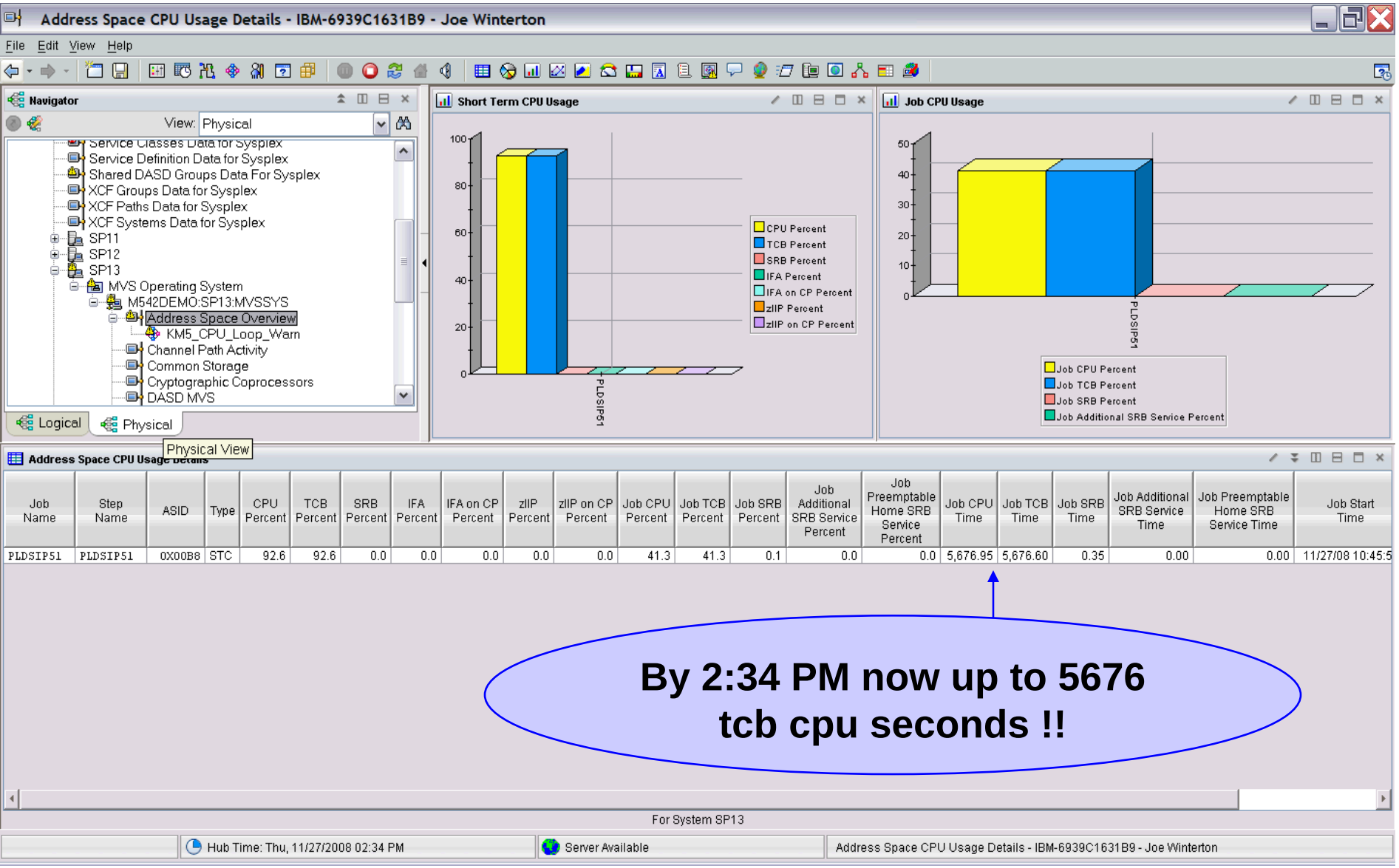
Look at detailed CPU Use numbers:



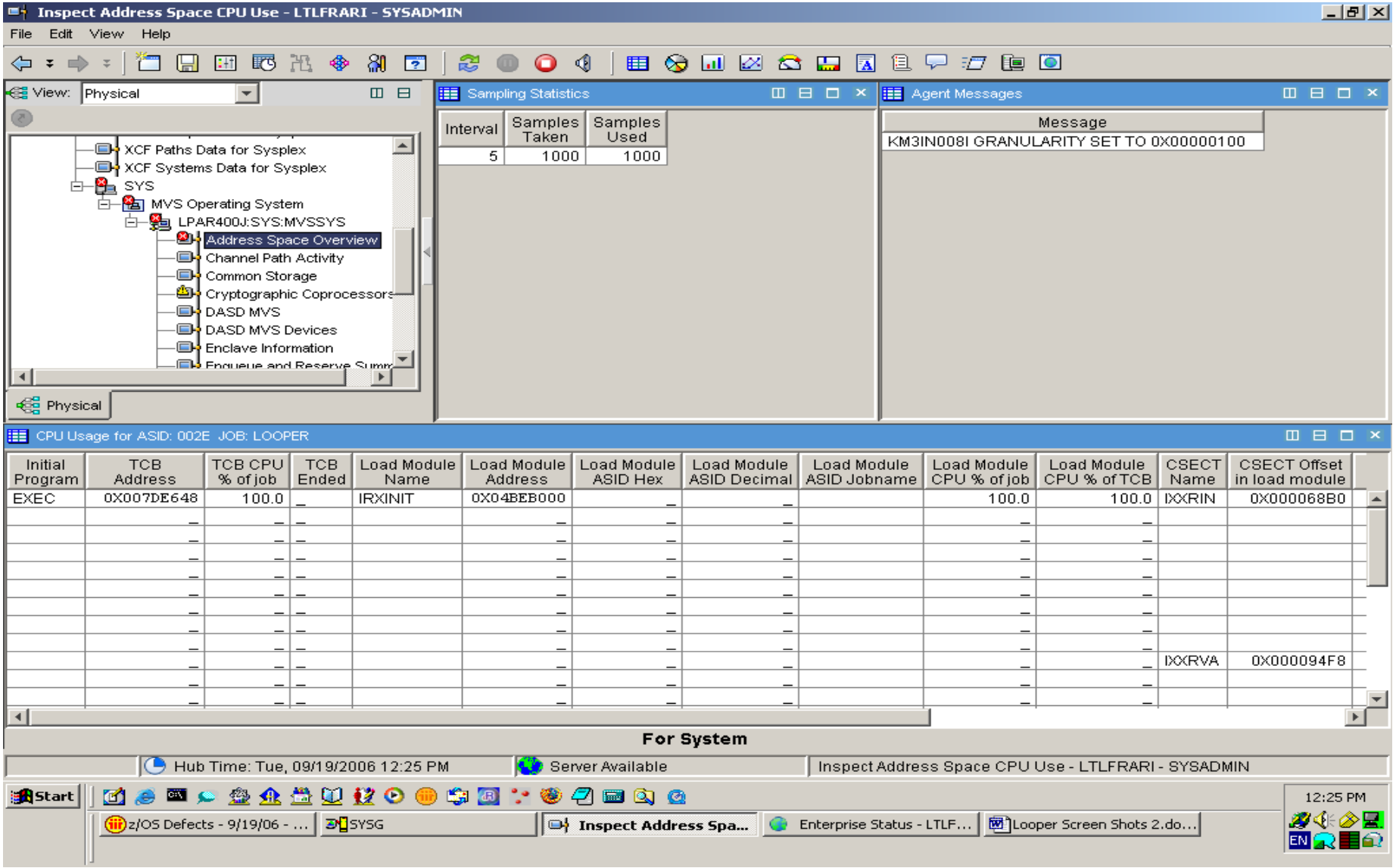
Overall LPAR impact at CPU use level:



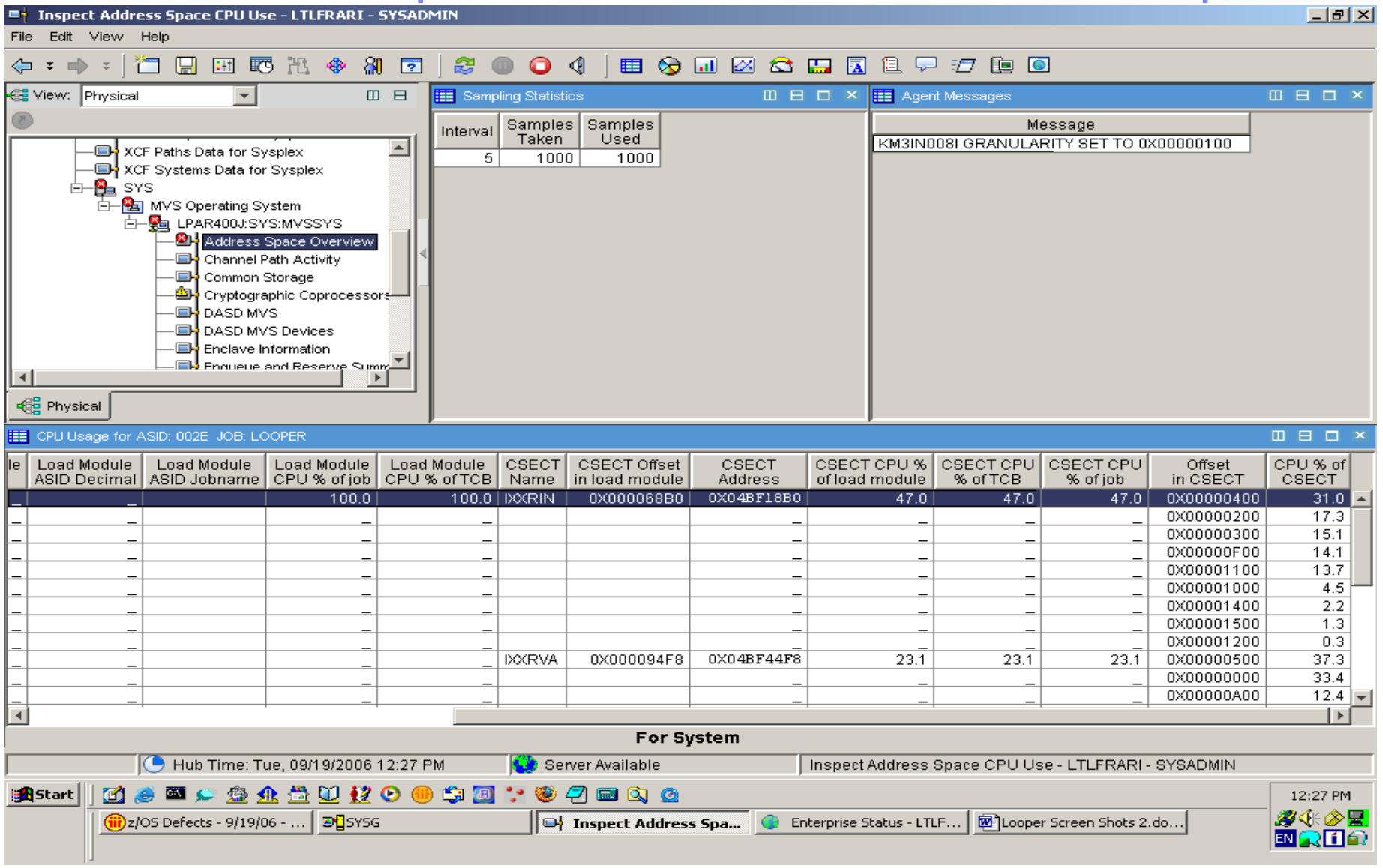
Check back at usage – up to 5676 secs cpu:



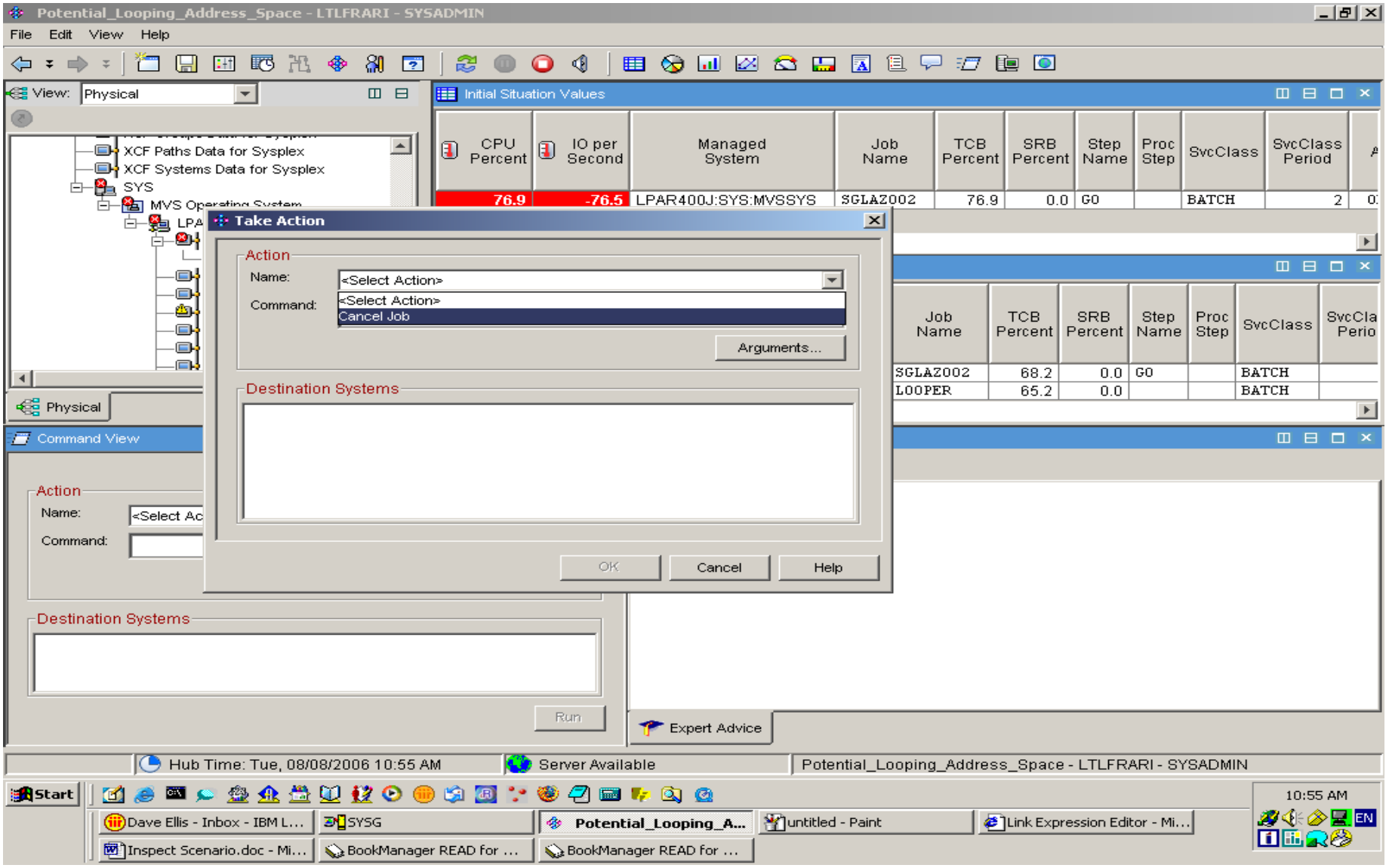
Link to Inspect Data Shows Hot Spot Offsets



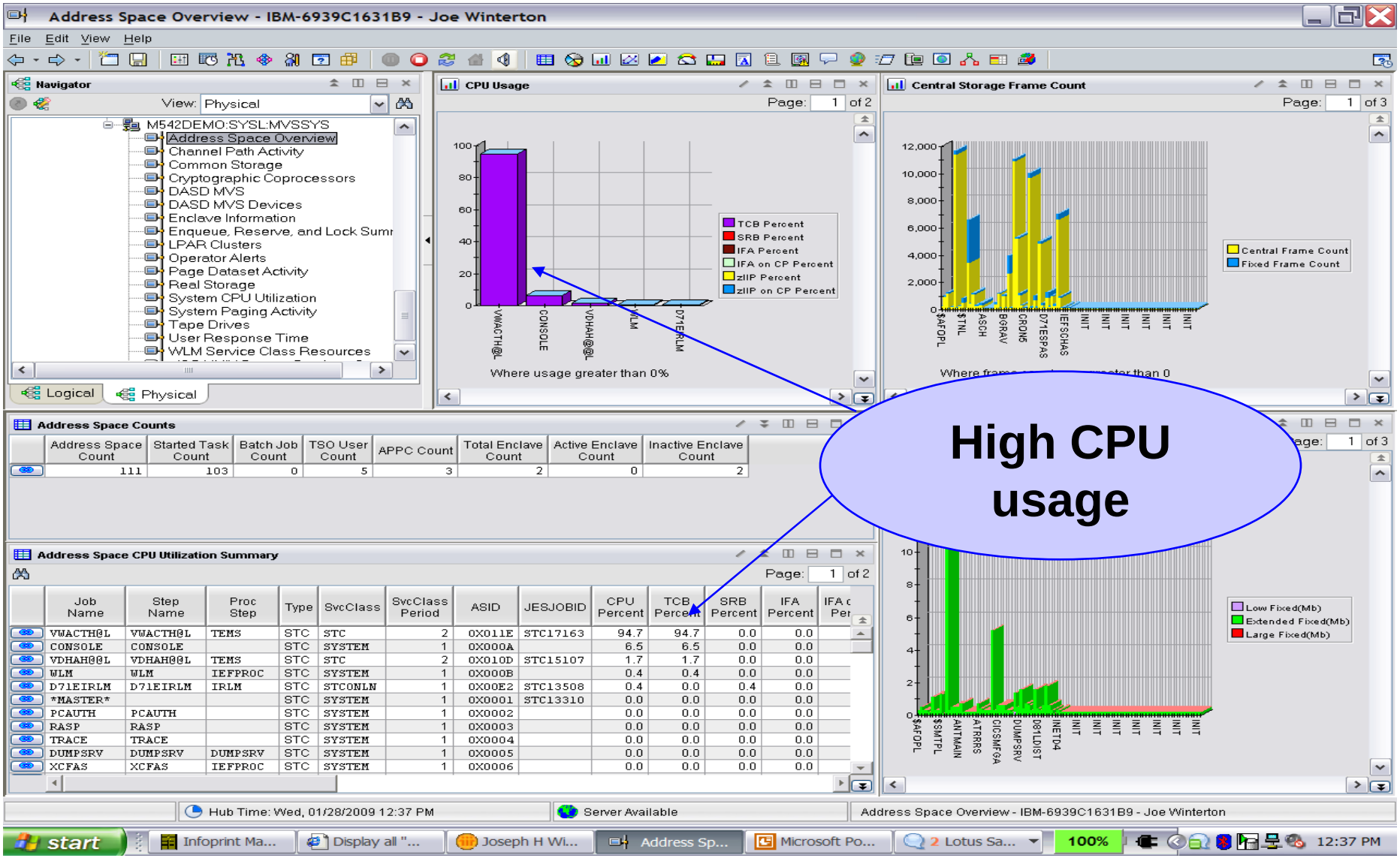
Additional Inspect Data Shows CSECT Hot Spots



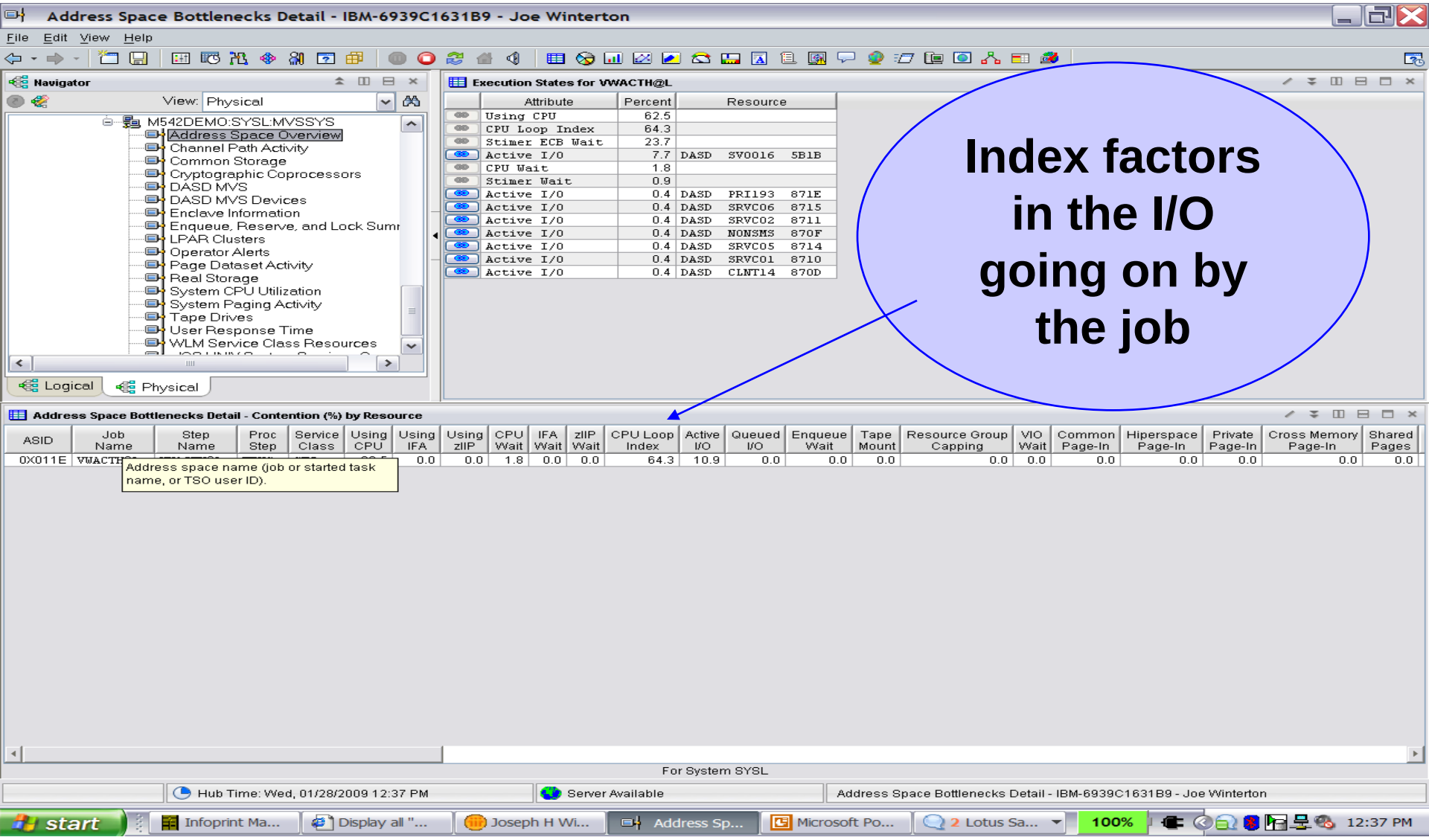
You take action to cancel LOOPER



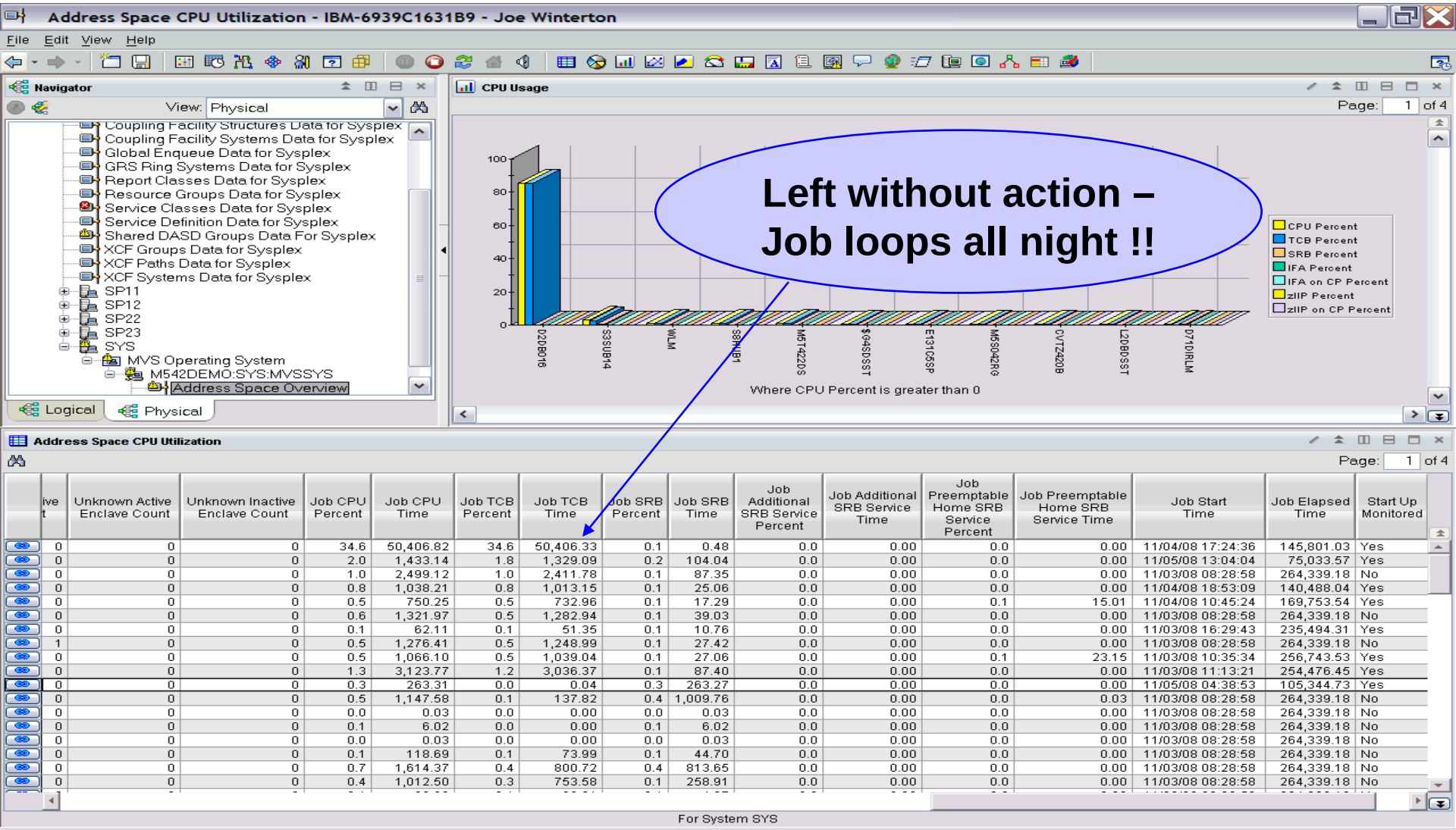
Now this one looks like a LOOPER



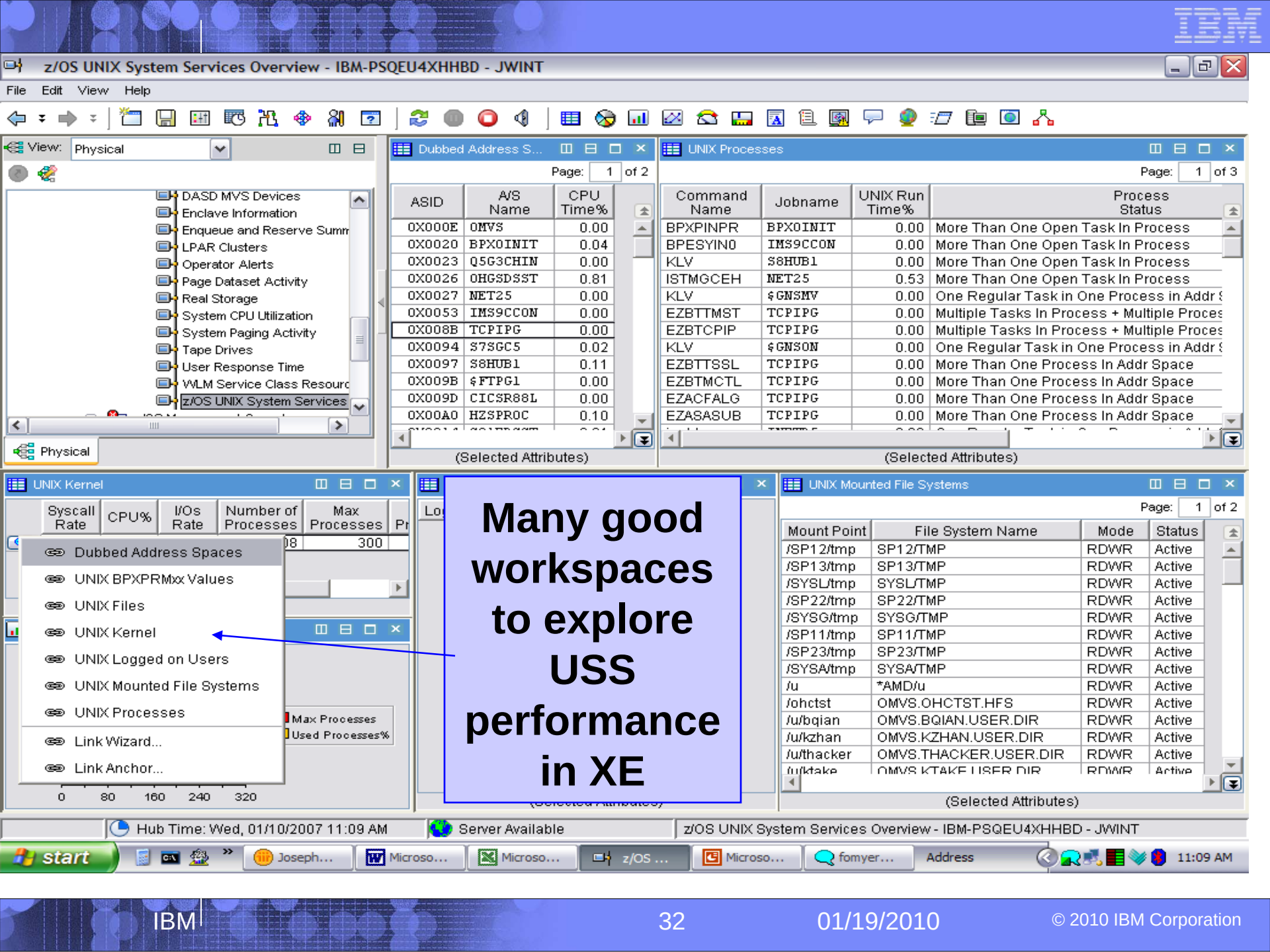
CPU Loop Index tells you to relax !!

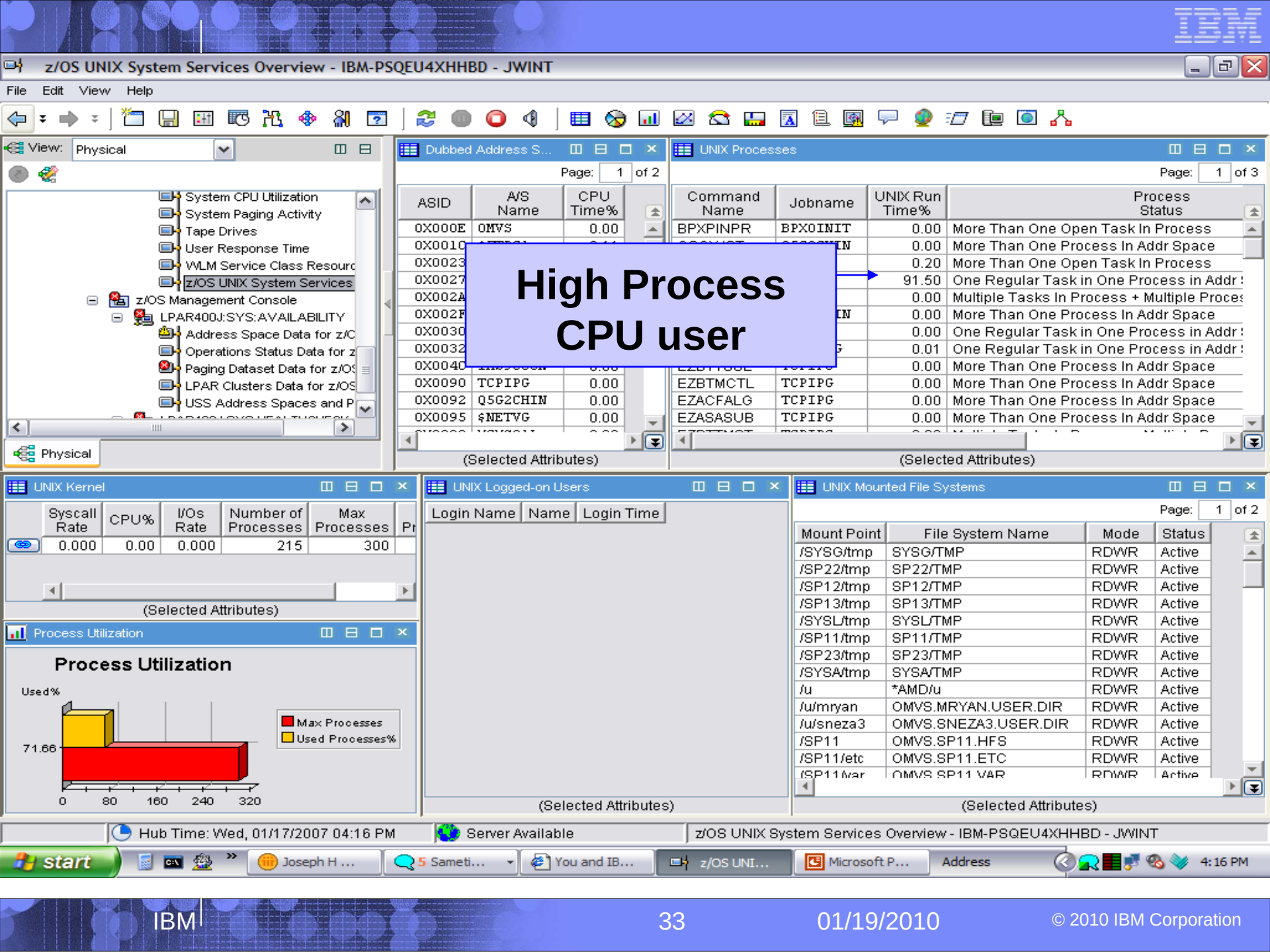


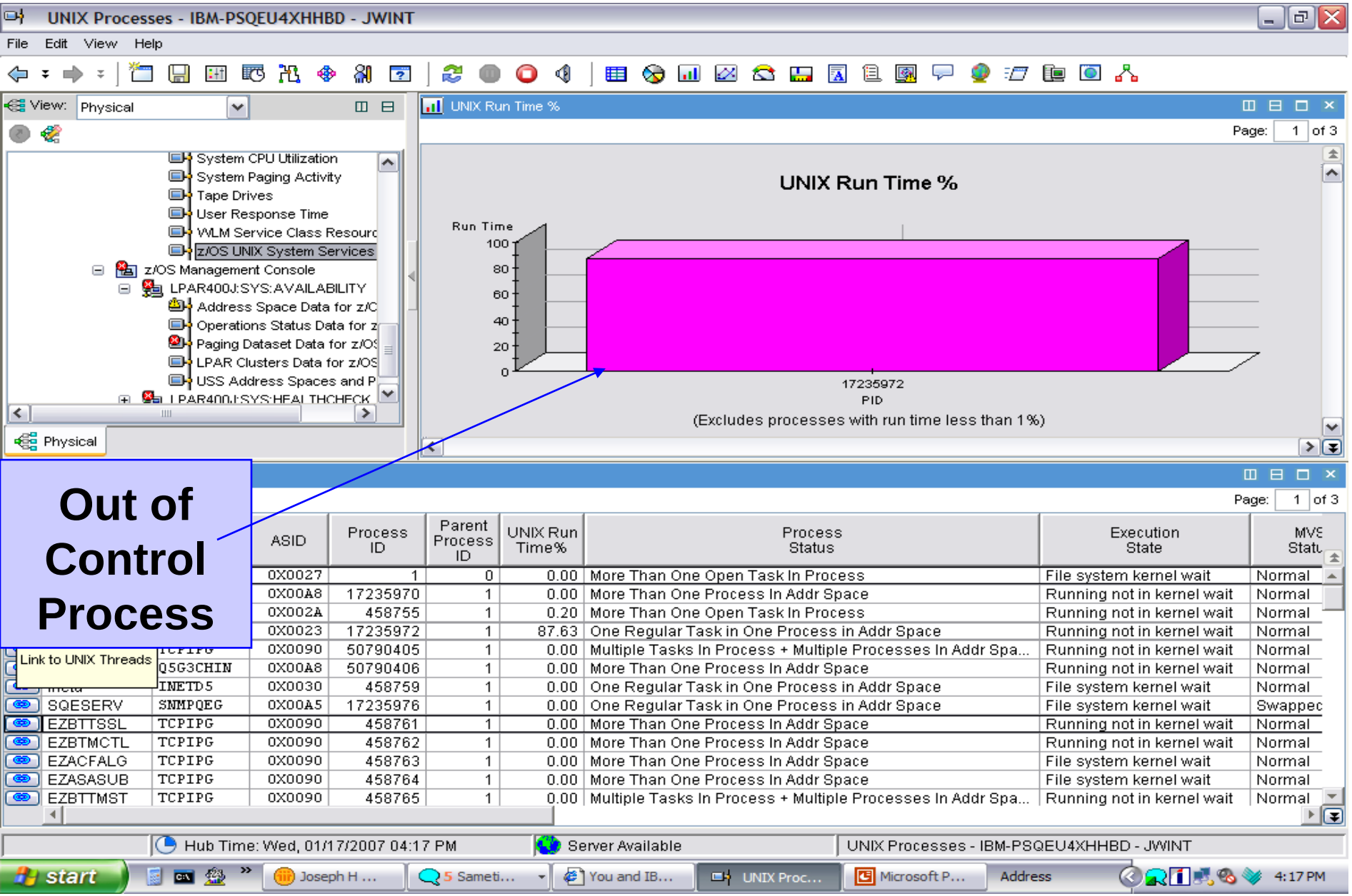
A overnight Looper– over 50K z10 cpu seconds:



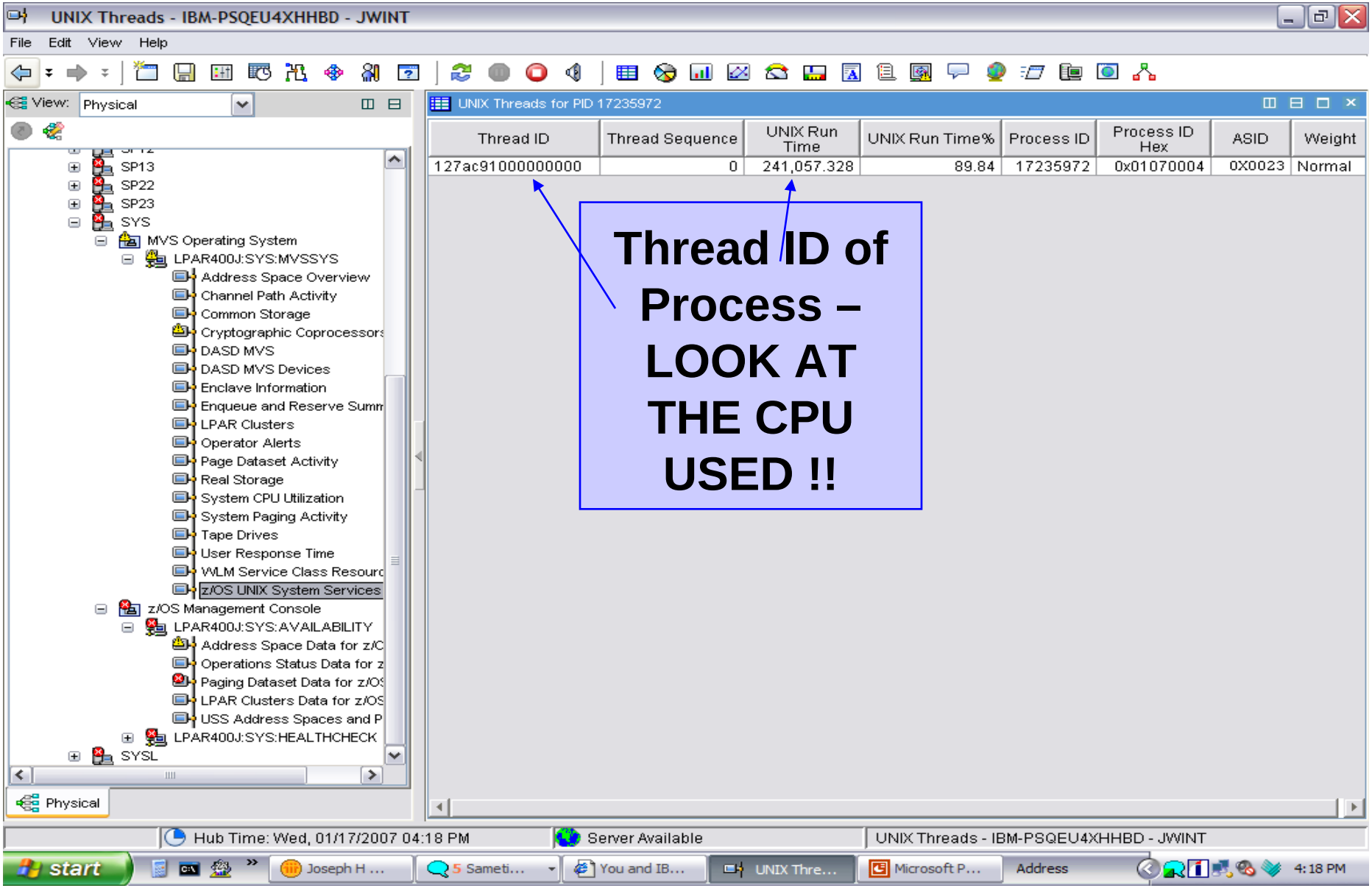
ive t	Unknown Active Enclave Count	Unknown Inactive Enclave Count	Job CPU Percent	Job CPU Time	Job TCB Percent	Job TCB Time	Job SRB Percent	Job SRB Time	Job Additional SRB Service Percent	Job Additional SRB Service Time	Job Preemptable Home SRB Service Percent	Job Preemptable Home SRB Service Time	Job Start Time	Job Elapsed Time	Start Up Monitored
0	0	0	34.6	50,406.82	34.6	50,406.33	0.1	0.48	0.0	0.00	0.0	0.00	11/04/08 17:24:36	145,801.03	Yes
0	0	0	2.0	1,433.14	1.8	1,329.09	0.2	104.04	0.0	0.00	0.0	0.00	11/05/08 13:04:04	75,033.57	Yes
0	0	0	1.0	2,499.12	1.0	2,411.78	0.1	87.35	0.0	0.00	0.0	0.00	11/03/08 08:28:58	264,339.18	No
0	0	0	0.8	1,038.21	0.8	1,013.15	0.1	25.06	0.0	0.00	0.0	0.00	11/04/08 18:53:09	140,488.04	Yes
0	0	0	0.5	750.25	0.5	732.96	0.1	17.29	0.0	0.00	0.1	15.01	11/04/08 10:45:24	169,753.54	Yes
0	0	0	0.6	1,321.97	0.5	1,282.94	0.1	39.03	0.0	0.00	0.0	0.00	11/03/08 08:28:58	264,339.18	No
0	0	0	0.1	62.11	0.1	51.35	0.1	10.76	0.0	0.00	0.0	0.00	11/03/08 16:29:43	235,494.31	Yes
1	0	0	0.5	1,276.41	0.5	1,248.99	0.1	27.42	0.0	0.00	0.0	0.00	11/03/08 08:28:58	264,339.18	No
0	0	0	0.5	1,066.10	0.5	1,039.04	0.1	27.06	0.0	0.00	0.1	23.15	11/03/08 10:35:34	256,743.53	Yes
0	0	0	1.3	3,123.77	1.2	3,036.37	0.1	87.40	0.0	0.00	0.0	0.00	11/03/08 11:13:21	254,476.45	Yes
0	0	0	0.3	263.31	0.0	0.04	0.3	263.27	0.0	0.00	0.0	0.00	11/05/08 04:38:53	105,344.73	Yes
0	0	0	0.5	1,147.58	0.1	137.82	0.4	1,009.76	0.0	0.00	0.0	0.03	11/03/08 08:28:58	264,339.18	No
0	0	0	0.0	0.03	0.0	0.00	0.0	0.03	0.0	0.00	0.0	0.00	11/03/08 08:28:58	264,339.18	No
0	0	0	0.1	6.02	0.0	0.00	0.1	6.02	0.0	0.00	0.0	0.00	11/03/08 08:28:58	264,339.18	No
0	0	0	0.0	0.03	0.0	0.00	0.0	0.03	0.0	0.00	0.0	0.00	11/03/08 08:28:58	264,339.18	No
0	0	0	0.1	118.69	0.1	73.99	0.1	44.70	0.0	0.00	0.0	0.00	11/03/08 08:28:58	264,339.18	No
0	0	0	0.7	1,614.37	0.4	800.72	0.4	813.65	0.0	0.00	0.0	0.00	11/03/08 08:28:58	264,339.18	No
0	0	0	0.4	1,012.50	0.3	753.58	0.1	258.91	0.0	0.00	0.0	0.00	11/03/08 08:28:58	264,339.18	No

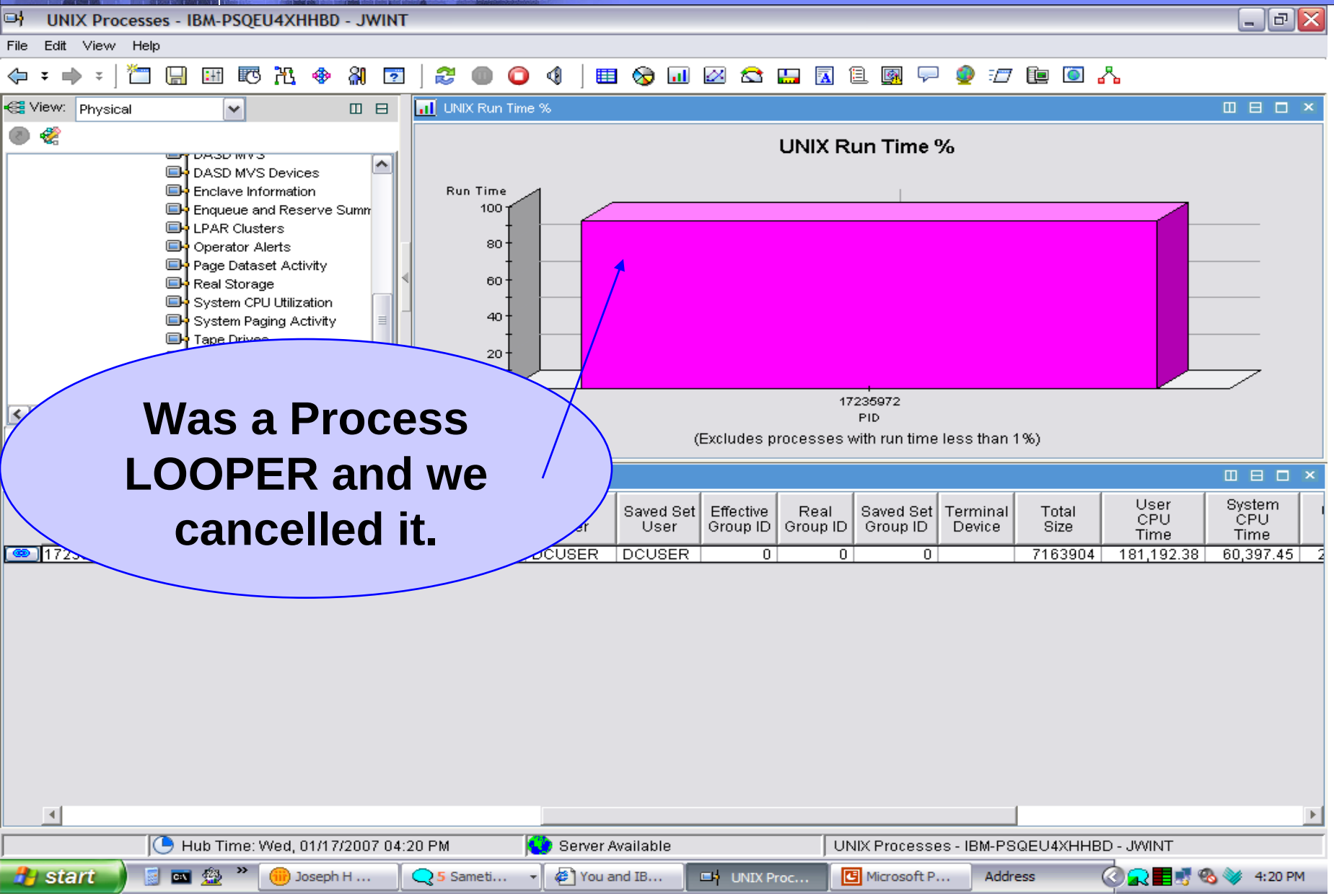




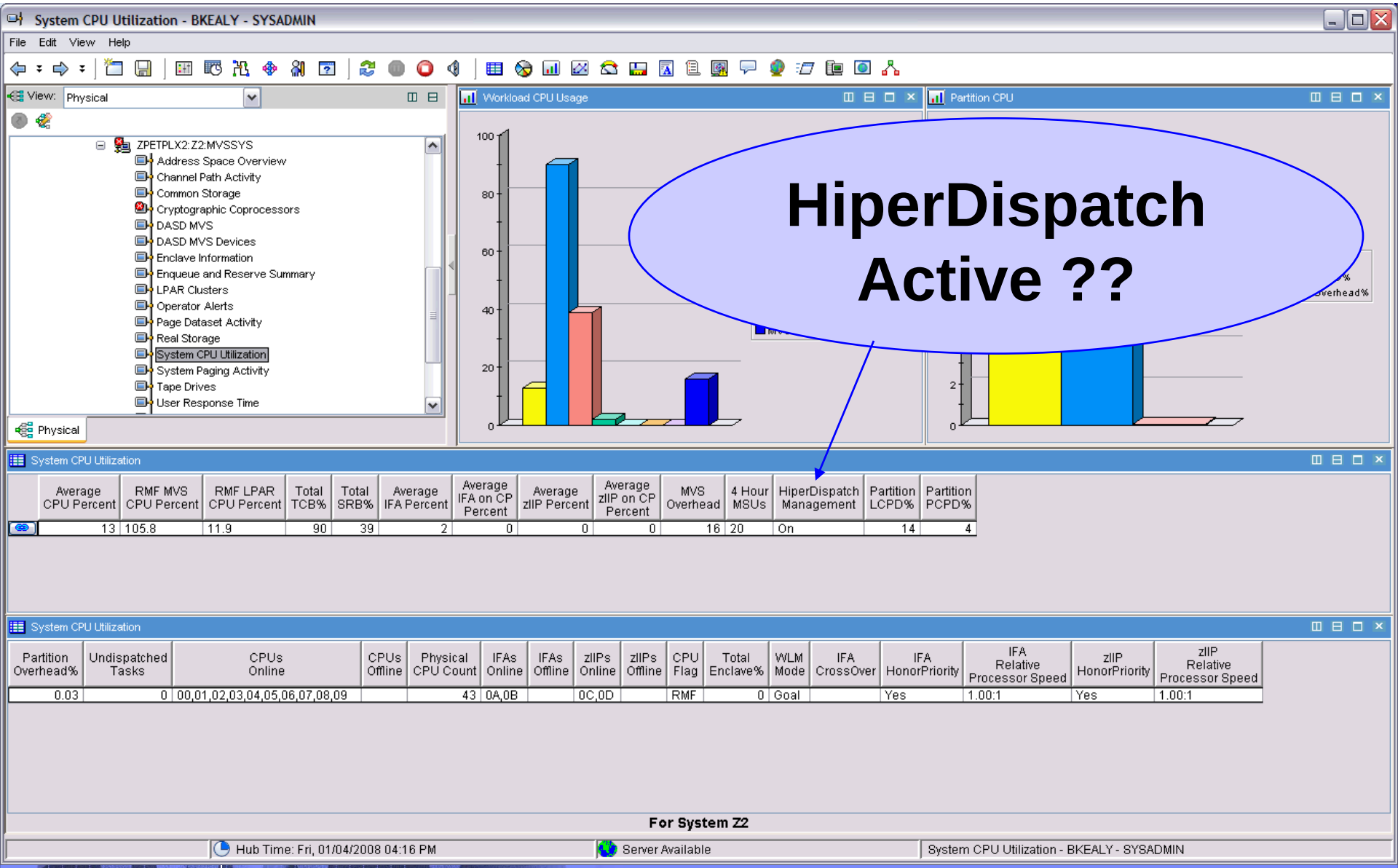


Out of Control Process





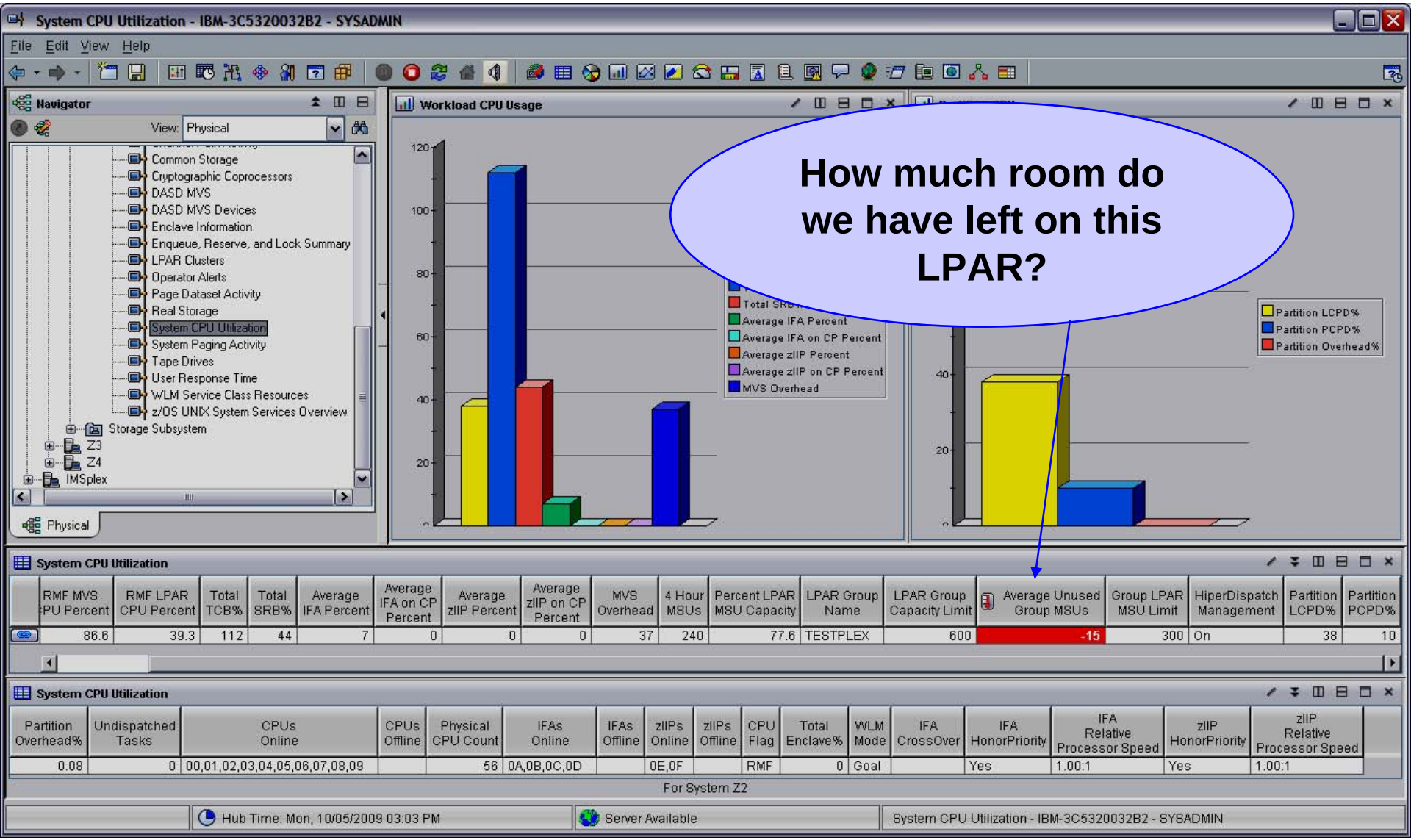
Getting z10 and HiperDispatch benefits yet?



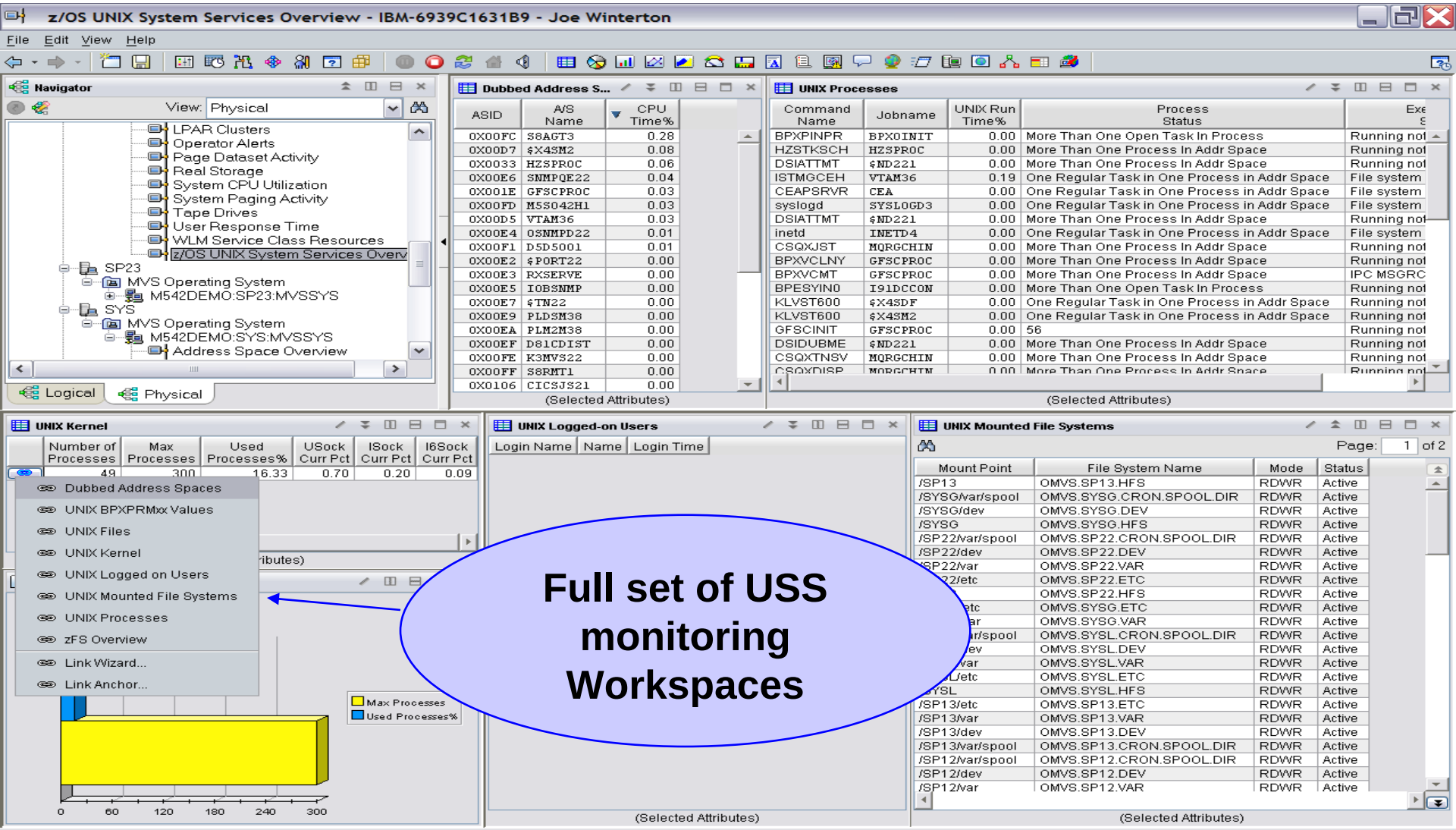
The z10 HiperDispatch Details – IF 1

CP by CP view

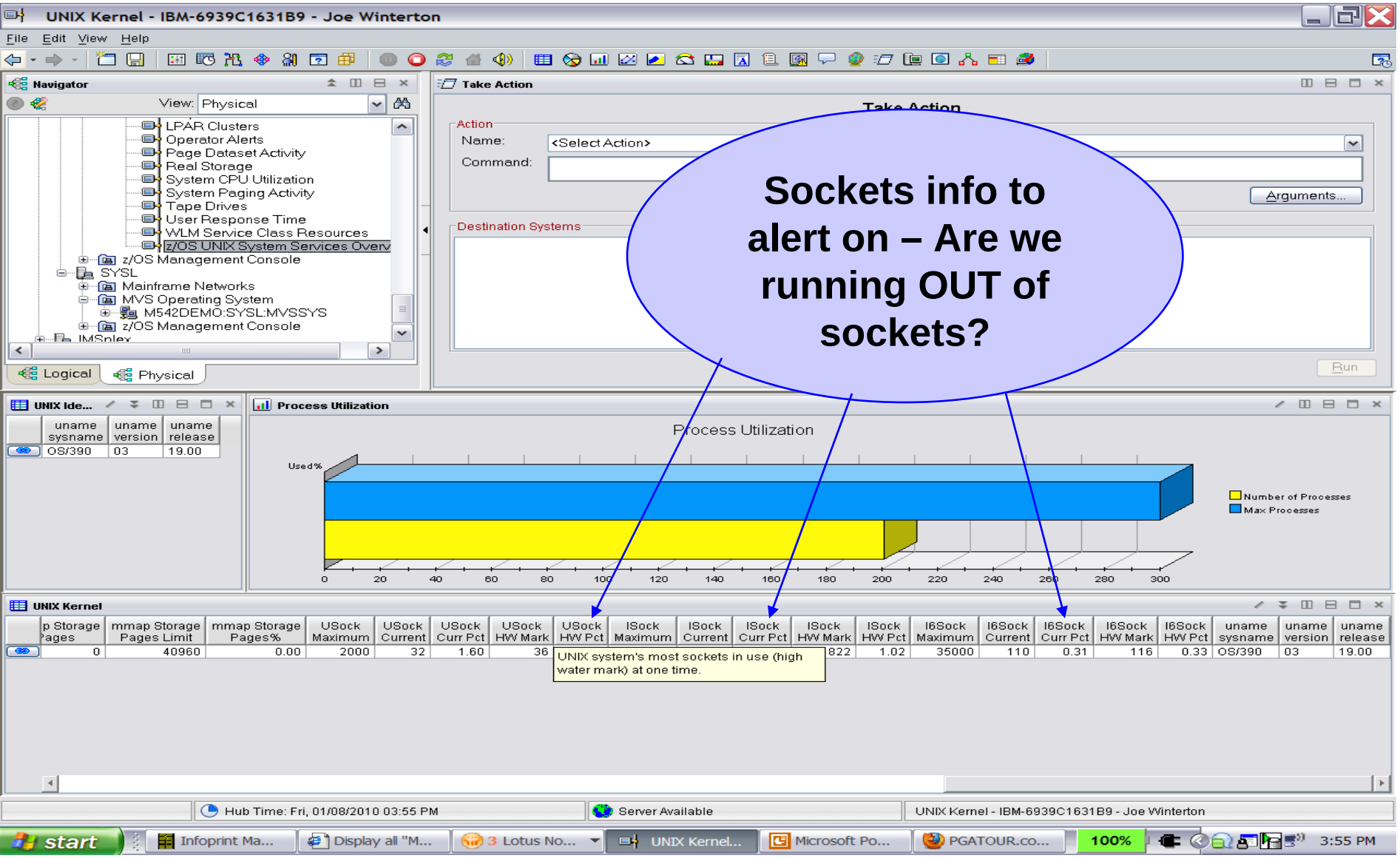
Unused Group MSU's average for the LPAR – IF1



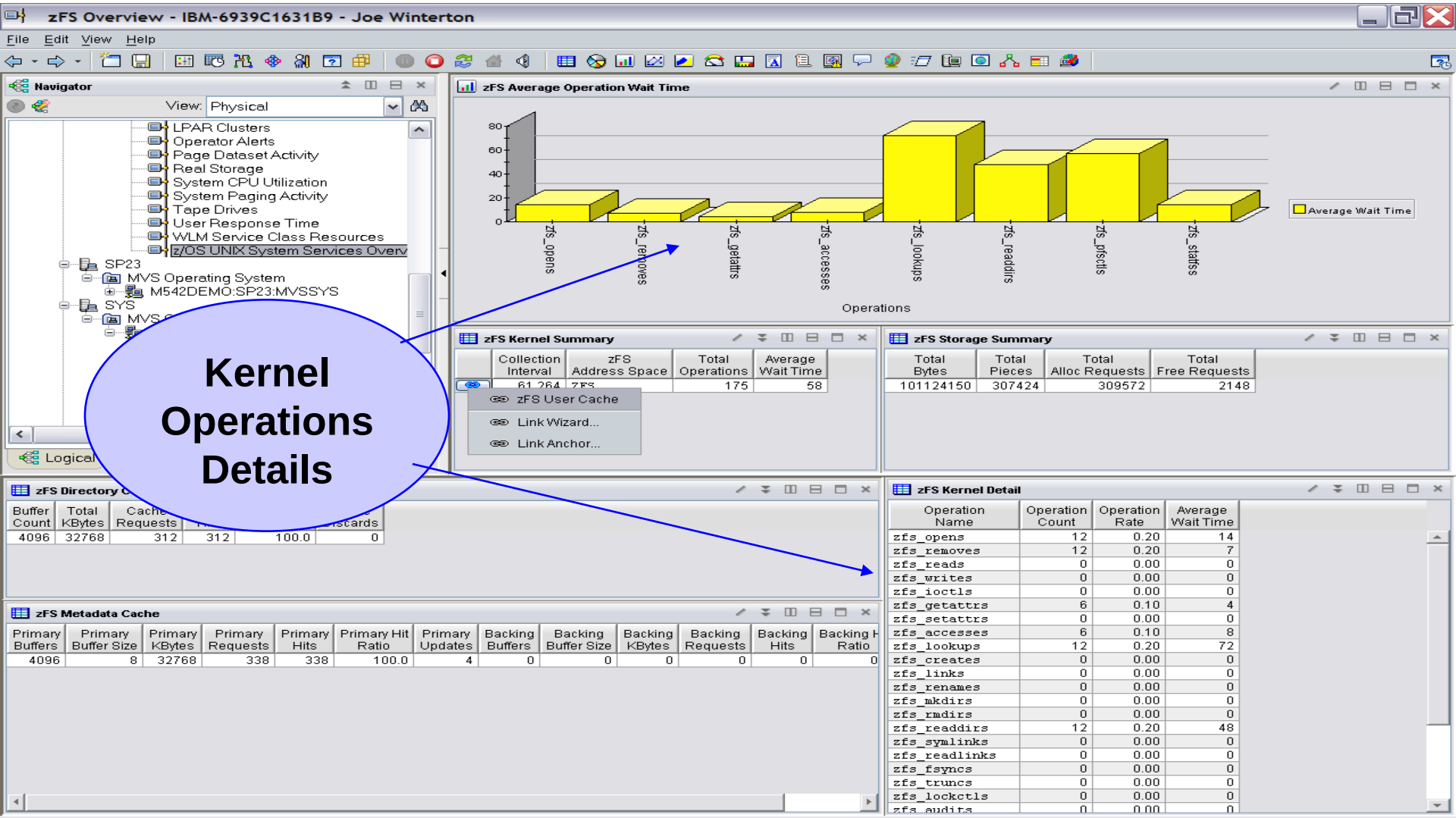
In 4.2.0 – USS - UNIX Processes, files, MFS, zFS



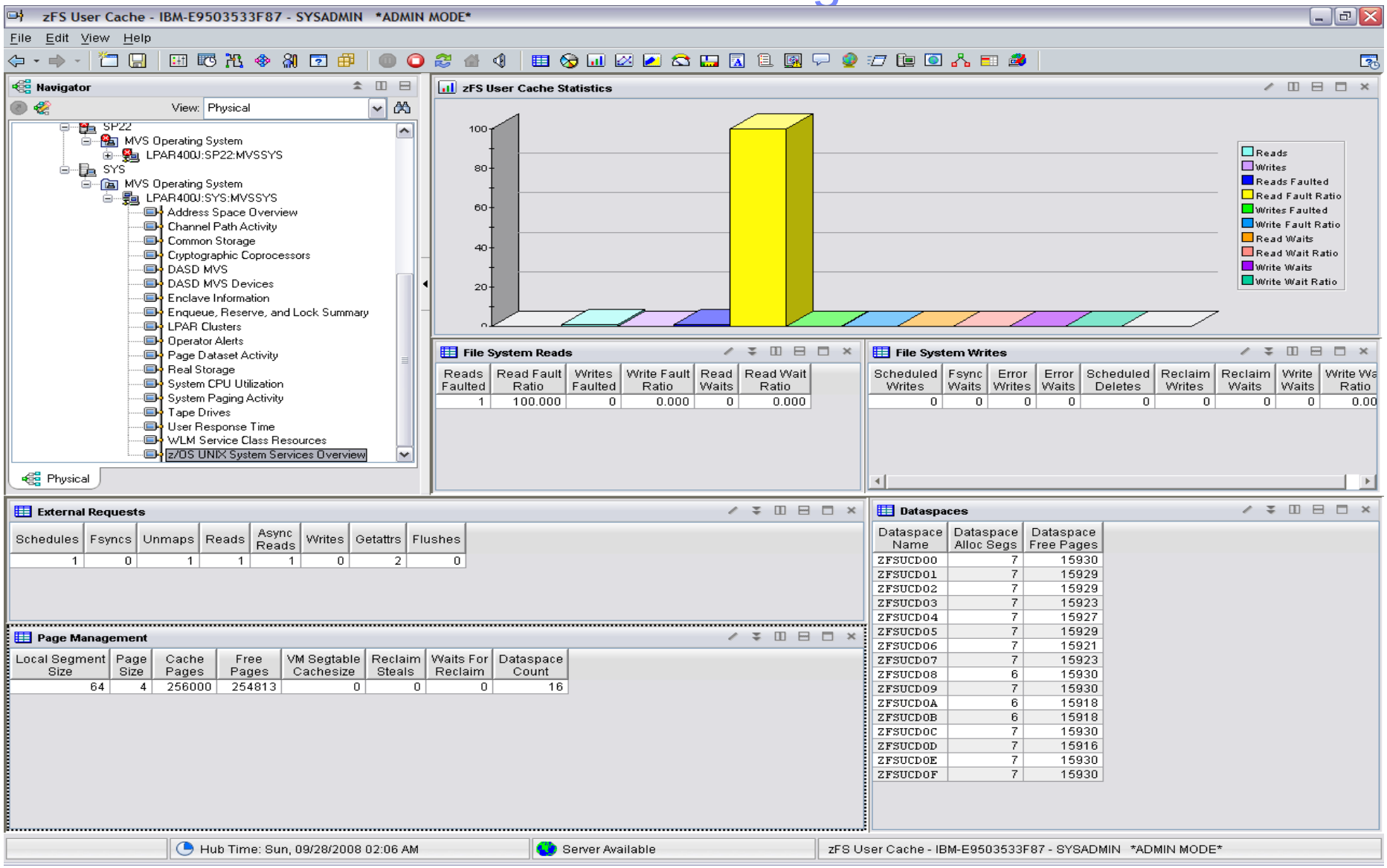
Running out of USS, Internet, IPV6 Sockets?



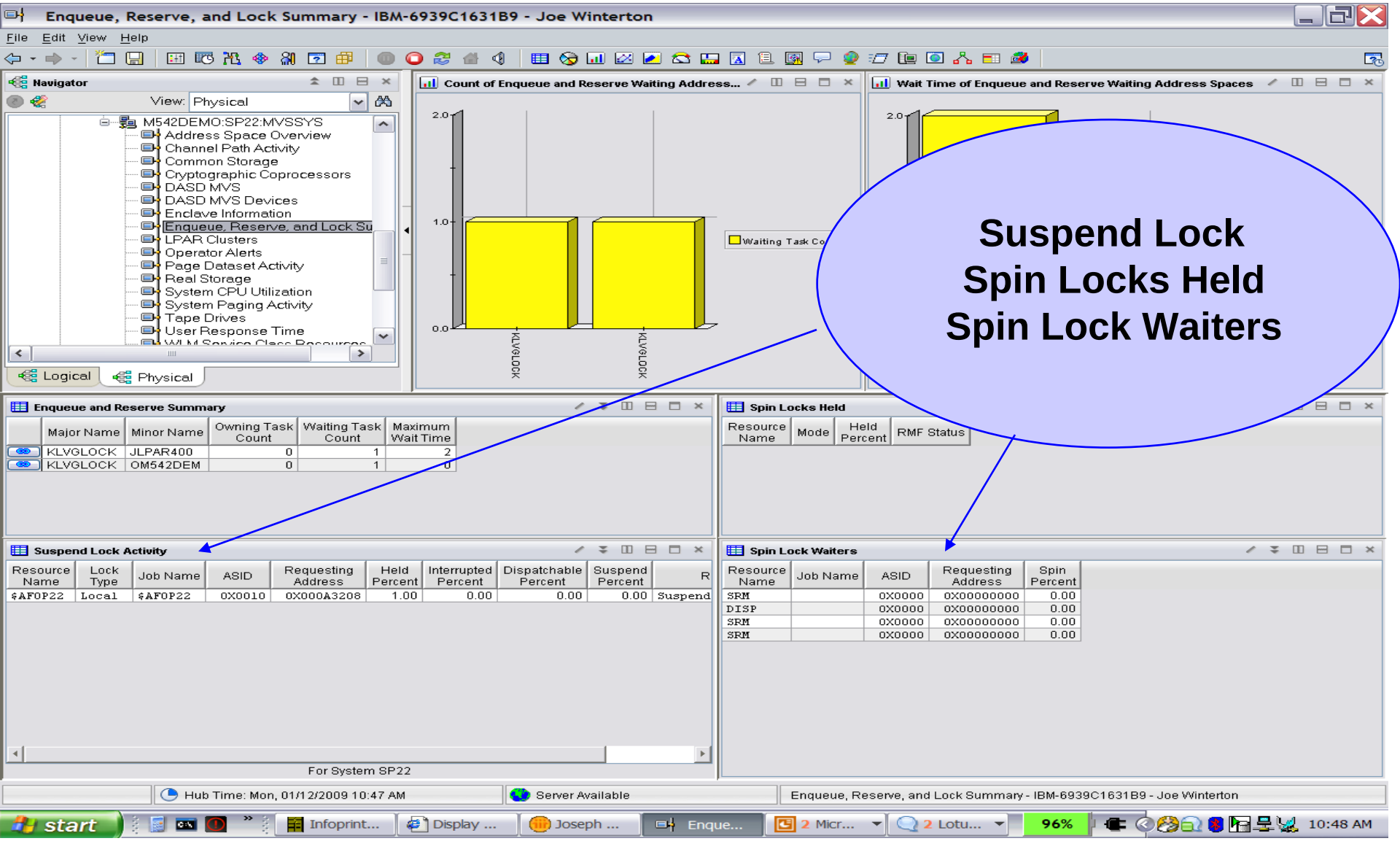
USS zFS monitoring added in 4.2.0:



USS zFS User Cache monitoring in 4.2.0:



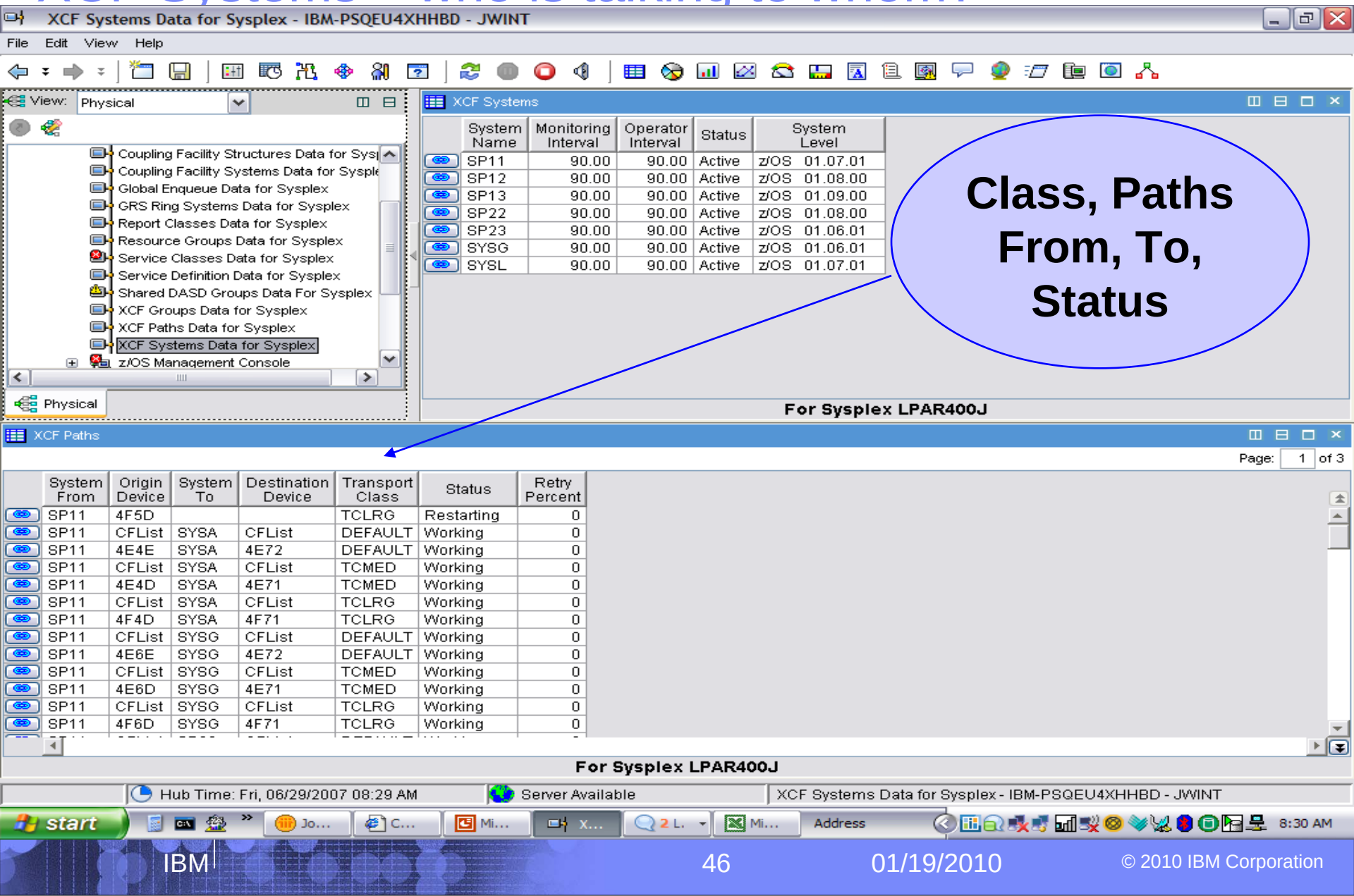
4.2.0 – Suspend Lock Information – RMF-1.10:



Exploring your z10 and z/OS systems using OMEGAMON XE on z/OS

Perplexed with your Sysplex?

XCF Systems – who is talking to whom?



XCF Classes – How we doing?

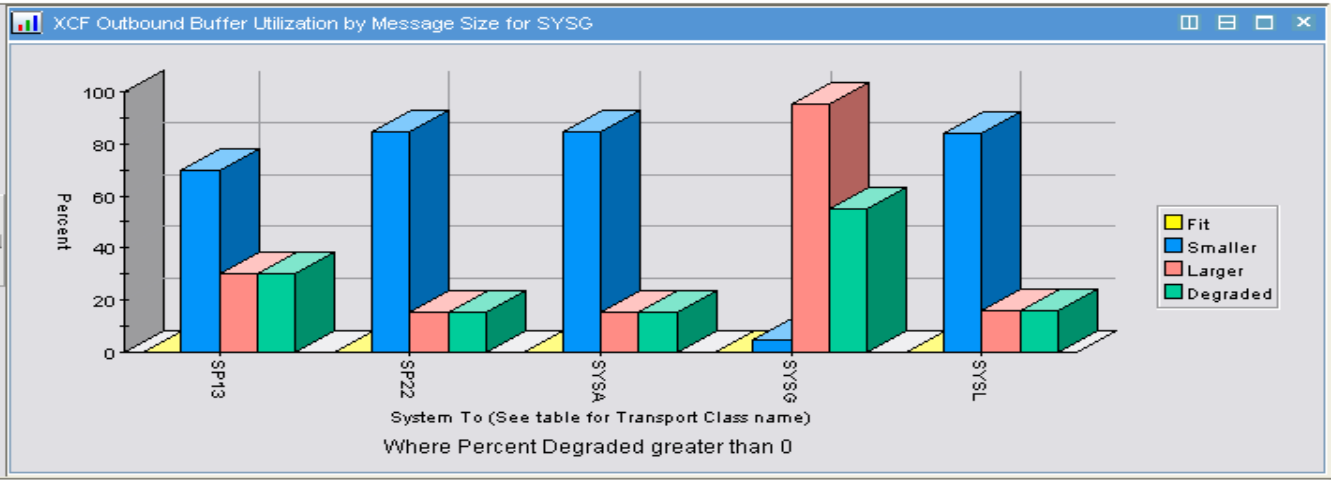
XCF System Statistics Data - IBM-PSQEU4XHHBD - JWINT

File Edit View Help

View: Physical

- z/OS Systems
  - LPAR400J:MVS:SYSPLEX
    - Coupling Facility Policy Data for Sysplex
    - Coupling Facility Structures Data for Sysp
    - Coupling Facility Systems Data for Syspl
    - Global Enqueue Data for Sysplex
    - GRS Ring Systems Data for Sysplex
    - Report Classes Data for Sysplex
    - Resource Groups Data for Sysplex
    - Service Classes Data for Sysplex
    - Service Definition Data for Sysplex
    - Shared DASD Groups Data For Sysplex
    - XCF Groups Data for Sysplex

Physical



XCF System Statistics

System From	System To	Transport Class	Signals Sent	Signals Received	Times Path Unavailable	Times Buffer Unavailable	Buffer Length	Percent Fit	Percent Smaller	Percent Larger	Percent Degraded
SYSG	SP11	DEFAULT	1313	0	0	0	956	100.0	0.0	0.0	0.0
SYSG	SP22	TCLRG	26	0	0	0	20412	0.0	84.6	15.3	15.3
SYSG	SYSL	TCLRG	25	0	0	0	20412	0.0	84.0	16.0	16.0
SYSG	SP13	TCLRG	30	0	0	0	20412	0.0	70.0	30.0	30.0
SYSG	SP23	TCLRG	21	0	0	0	20412	0.0	100.0	0.0	0.0
SYSG	SP12	TCLRG	21	0	0	0	20412	0.0	100.0	0.0	0.0
SYSG	SYSA	TCLRG	26	0	0	0	20412	0.0	84.6	15.3	15.3
SYSG	SYSG	TCLRG	40	0	0	2	20412	0.0	5.0	95.0	55.0
SYSG	SP11	TCLRG	21	0	0	0	20412	0.0	100.0	0.0	0.0
SYSG	SYSL	TCMED	40	0	0	0	12220	0.0	100.0	0.0	0.0
SYSG	SYSG	TCMED	195	0	0	1	12220	1.0	98.9	0.0	0.0
SYSG	SYSA	TCMED	120	0	0	0	12220	4.1	95.8	0.0	0.0
SYSG	SP11	TCMED	33	0	0	0	12220	0.0	100.0	0.0	0.0
SYSG	SP23	TCMED	33	0	0	0	12220	0.0	100.0	0.0	0.0
SYSG	SP22	TCMED	62	0	0	0	12220	6.4	93.5	0.0	0.0
SYSG	SP13	TCMED	43	0	0	0	12220	0.0	100.0	0.0	0.0

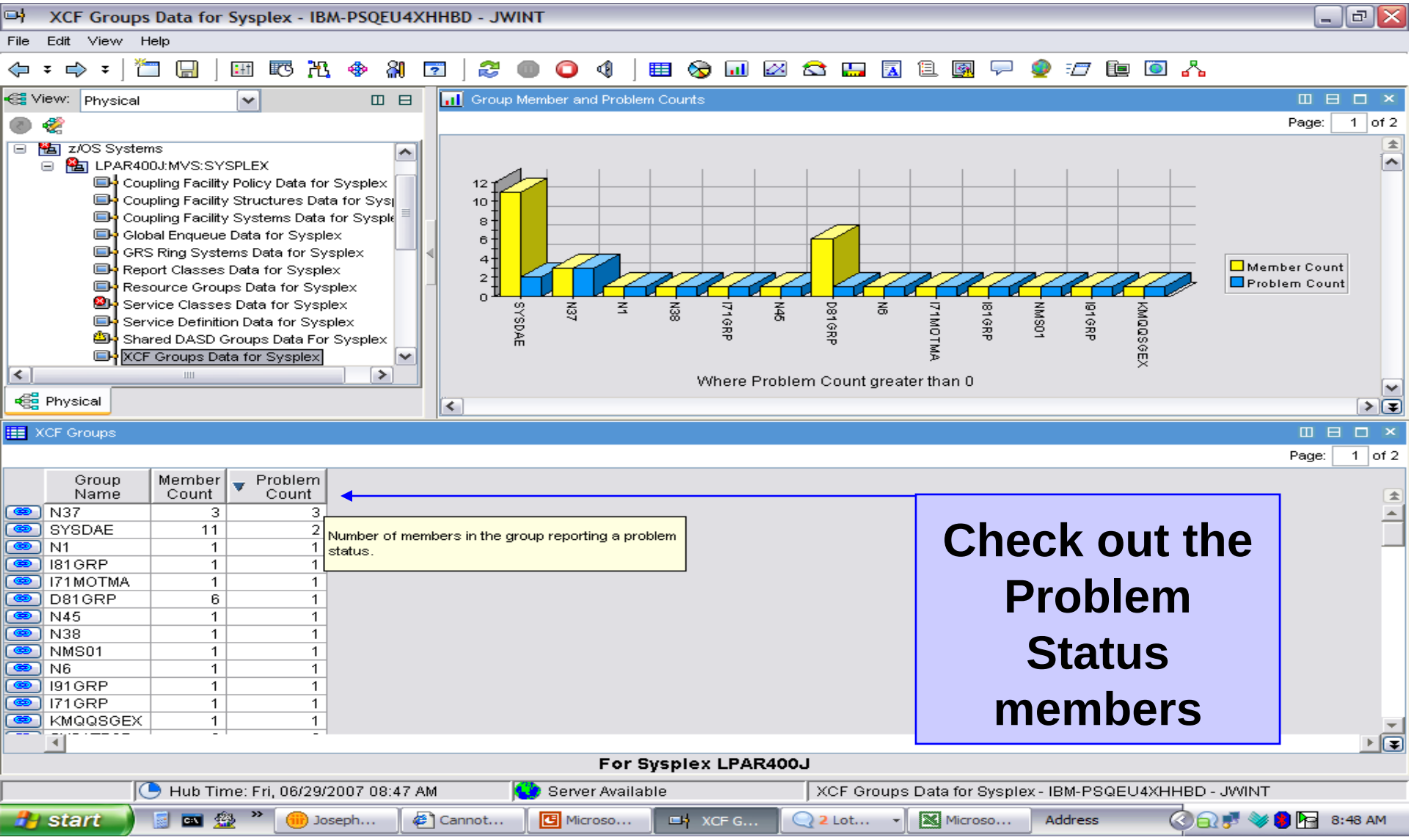
For System SYSG on LPAR400J

The details are here !!

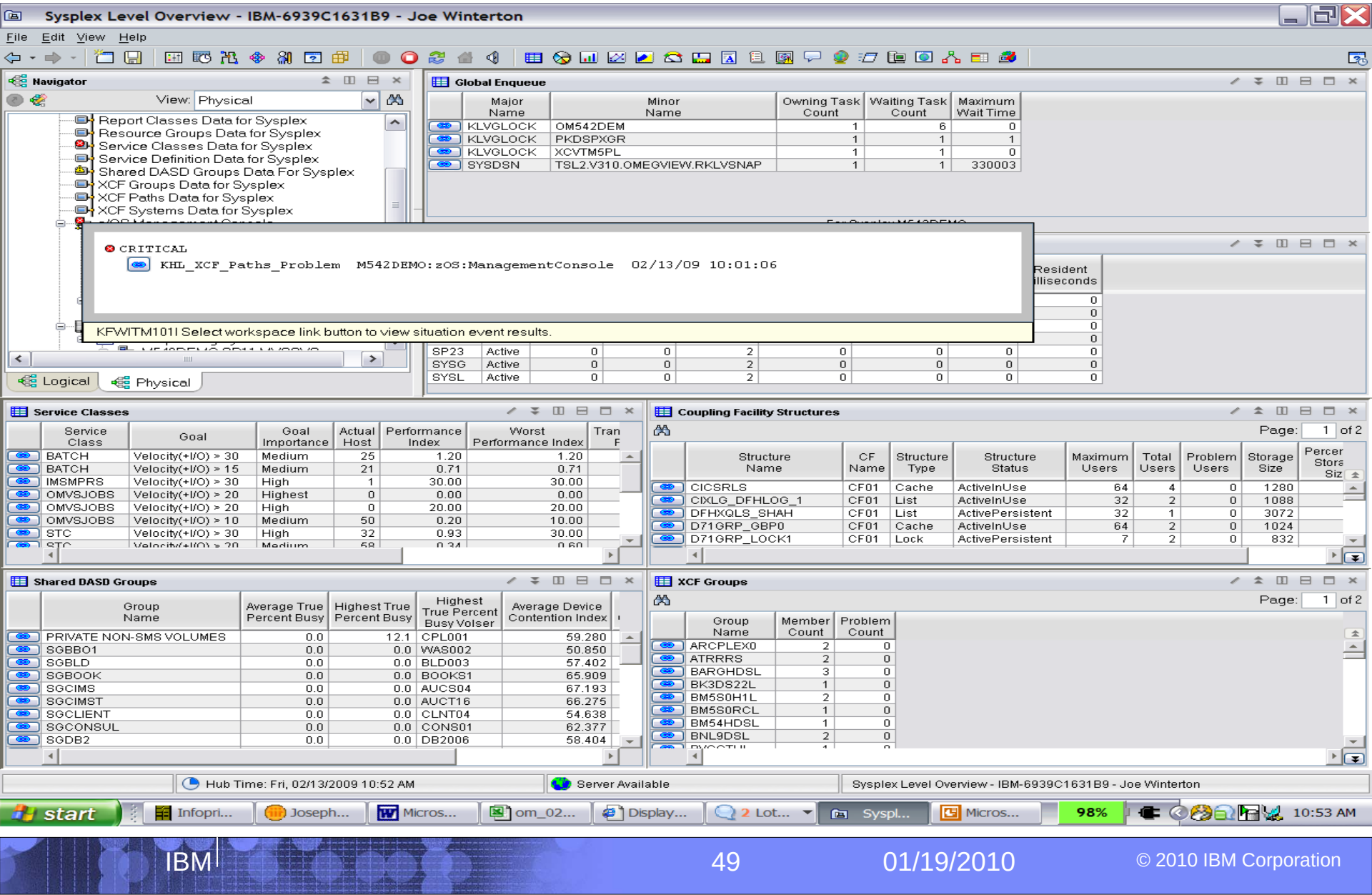
Hub Time: Wed, 05/02/2007 04:33 PM | Server Available | XCF System Statistics Data - IBM-PSQEU4XHHBD - JWINT

start | Joseph ... | Display ... | Sam... | XCF Sy... | Microsof... | Session ... | Address | 4:31 PM

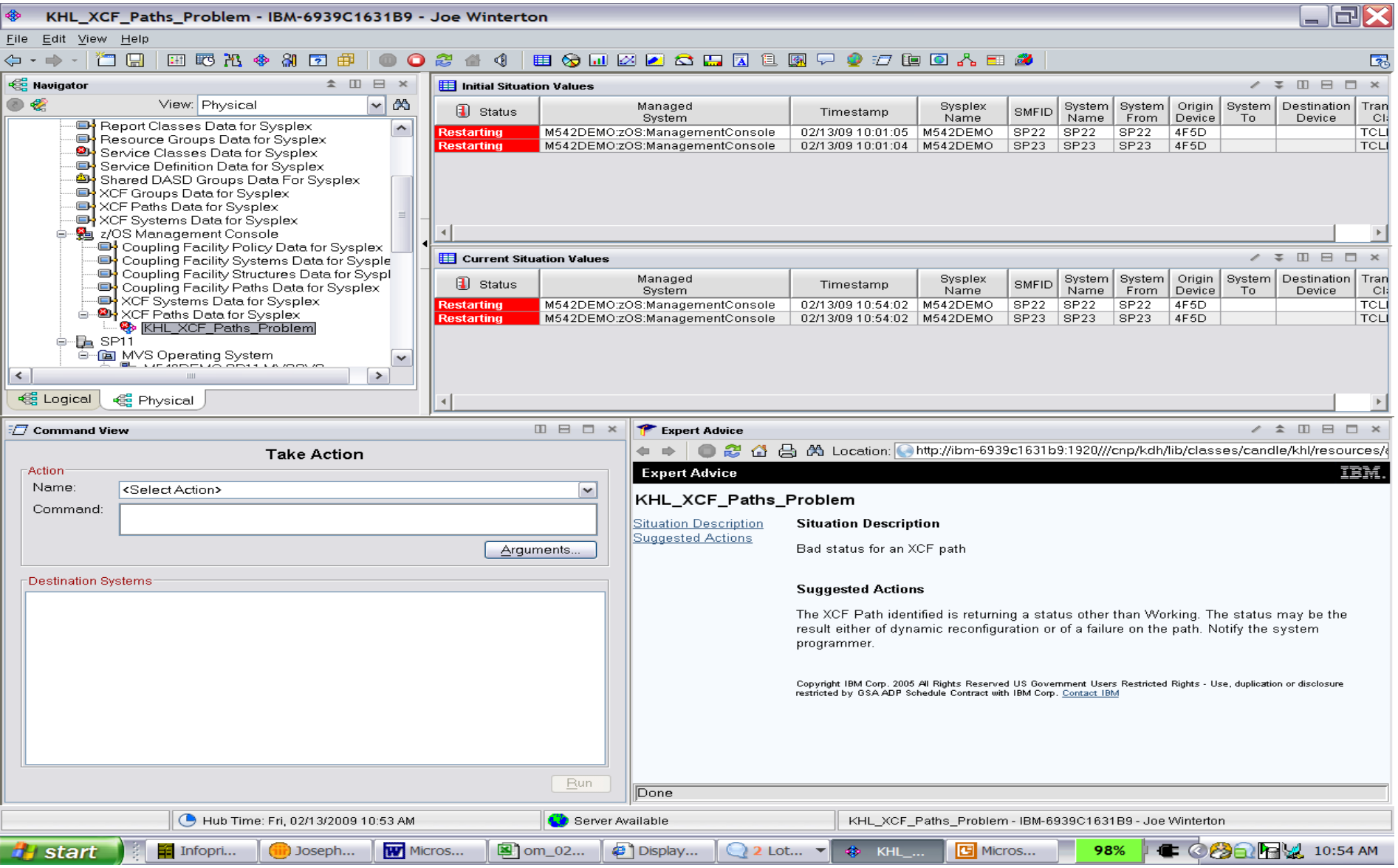
XCF Groups – Who has problems?



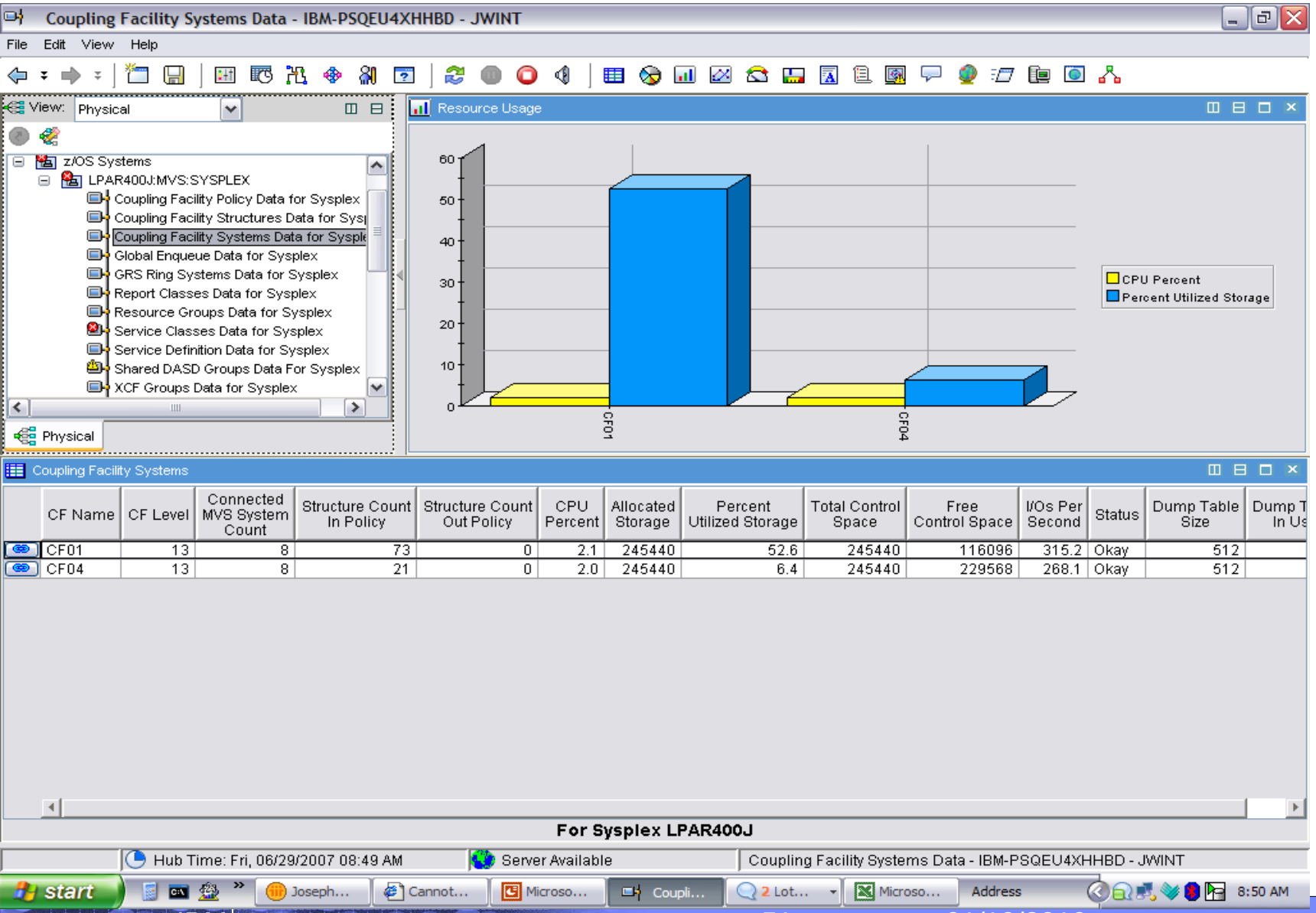
XCF Paths – An alert on a problem !



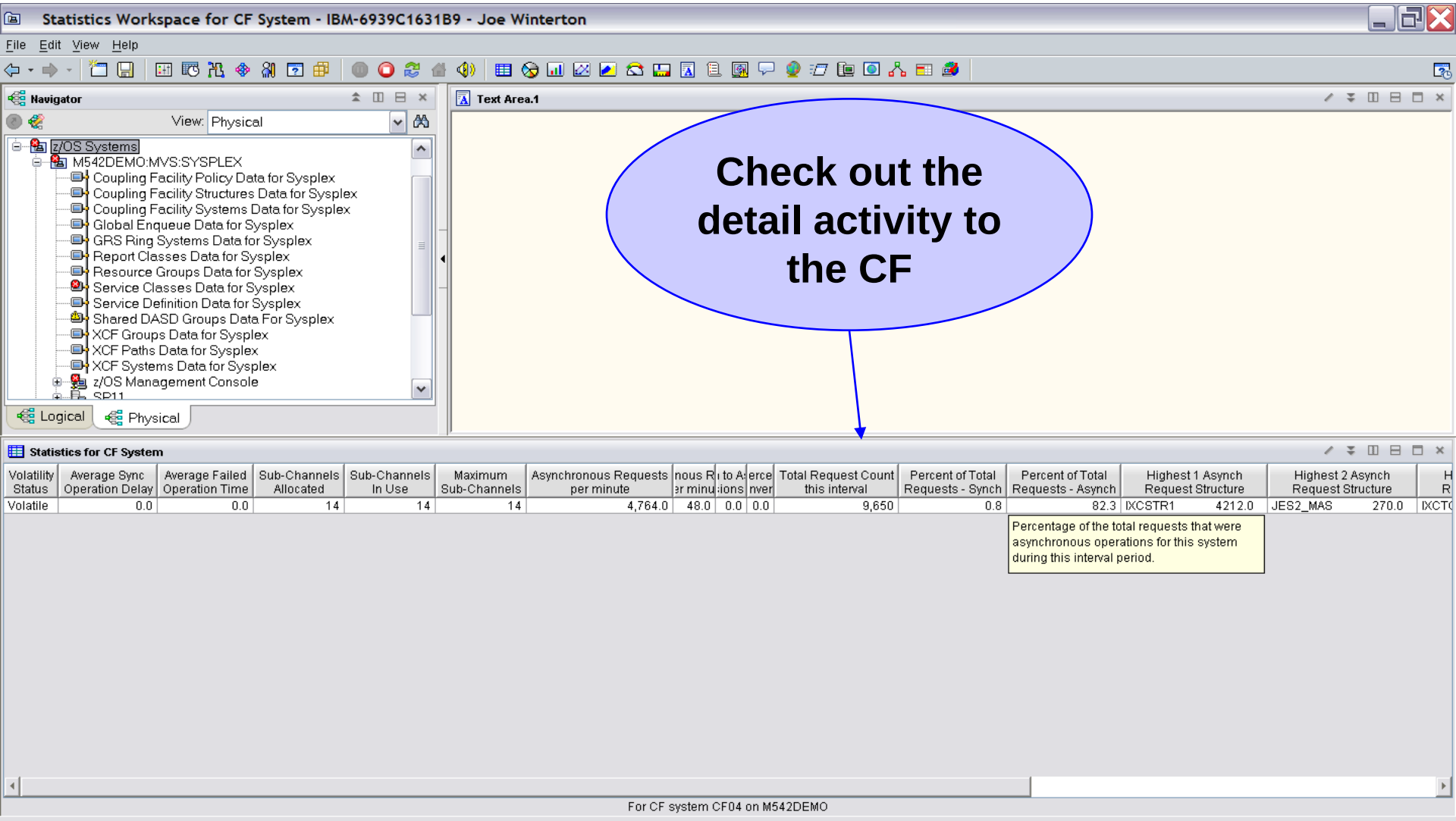
XCF Path issue – Expert Advice



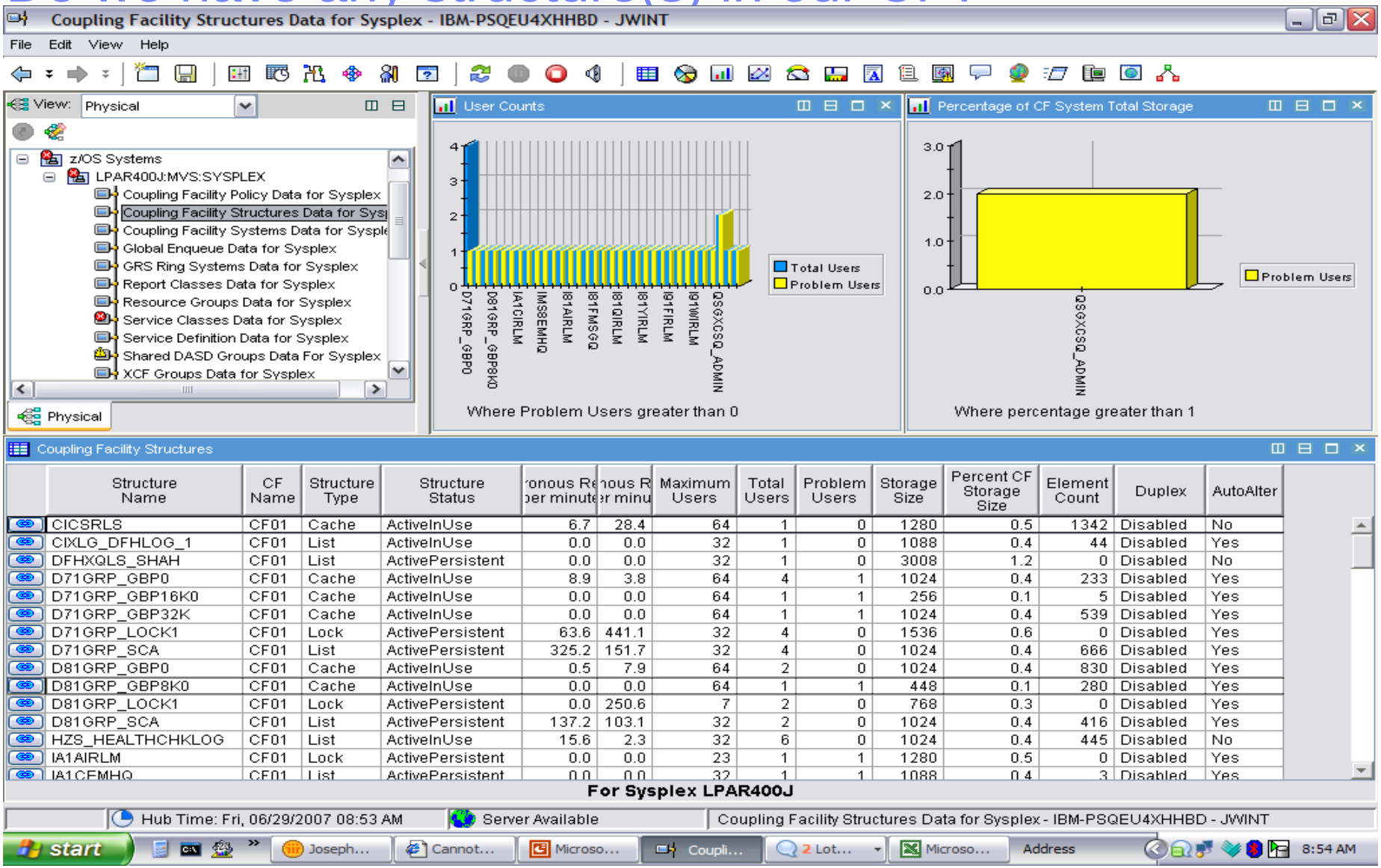
Whats up with the CF's in our Plex?



Whats are the CF's detail stats in our Plex?

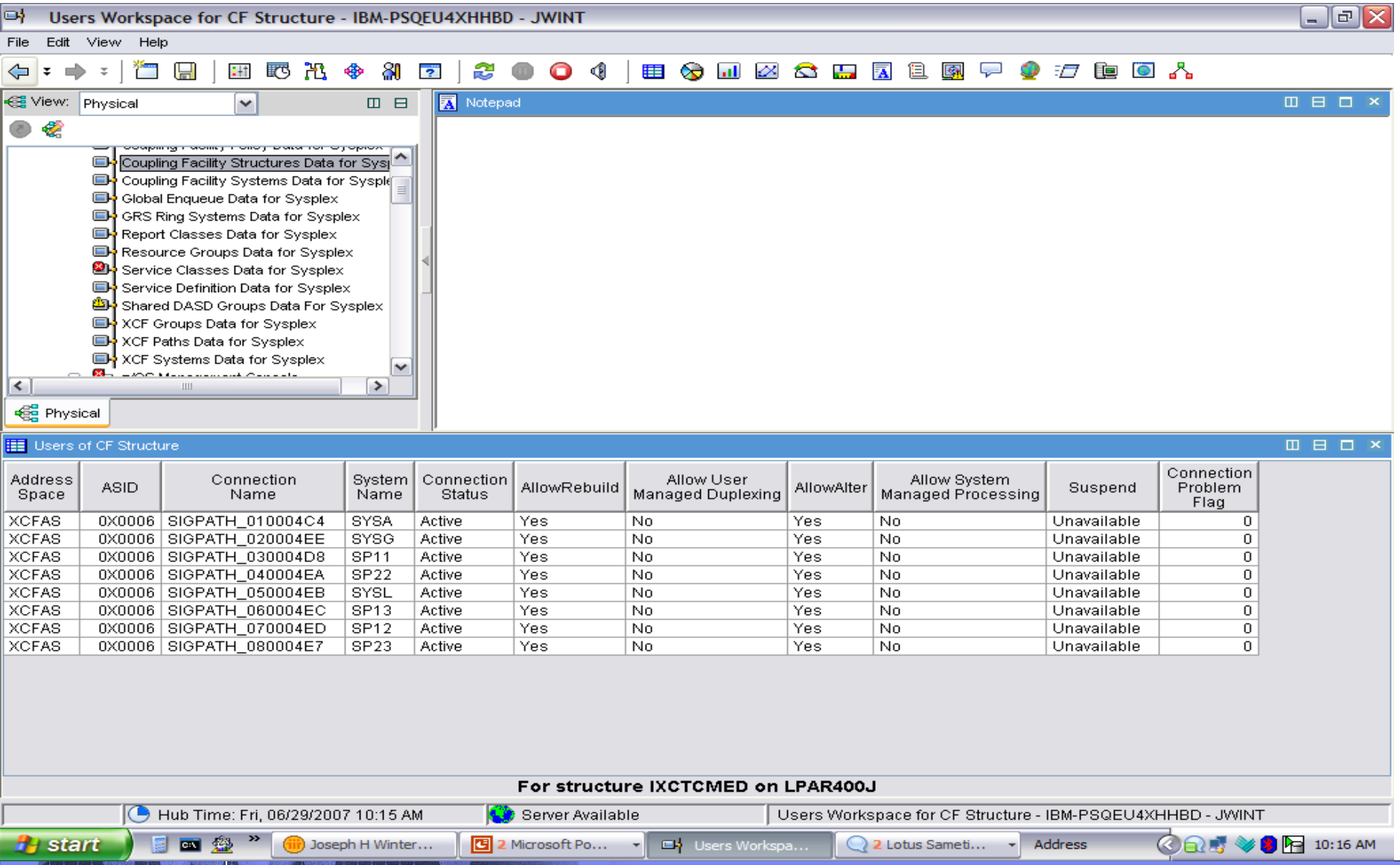


Do we have any structure(s) in our CF?

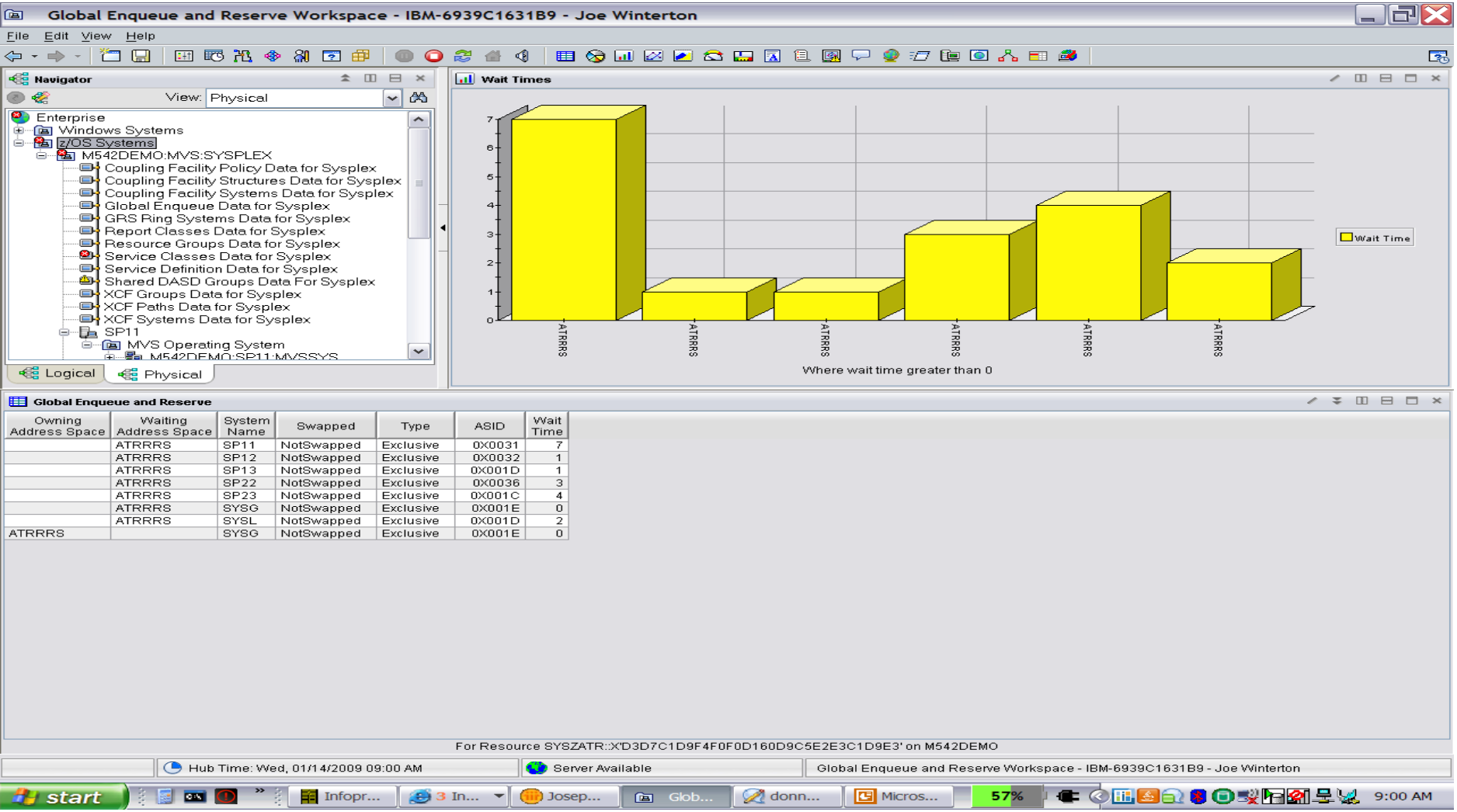


Structure Name	CF Name	Structure Type	Structure Status	onous Re per minute	ous R er minu	Maximum Users	Total Users	Problem Users	Storage Size	Percent CF Storage Size	Element Count	Duplex	AutoAlter
CICSRLS	CF01	Cache	ActiveInUse	6.7	28.4	64	1	0	1280	0.5	1342	Disabled	No
CIXLG_DFHLOG_1	CF01	List	ActiveInUse	0.0	0.0	32	1	0	1088	0.4	44	Disabled	Yes
DFHXQLS_SHAH	CF01	List	ActivePersistent	0.0	0.0	32	1	0	3008	1.2	0	Disabled	No
D71GRP_GBP0	CF01	Cache	ActiveInUse	8.9	3.8	64	4	1	1024	0.4	233	Disabled	Yes
D71GRP_GBP16K0	CF01	Cache	ActiveInUse	0.0	0.0	64	1	1	256	0.1	5	Disabled	Yes
D71GRP_GBP32K	CF01	Cache	ActiveInUse	0.0	0.0	64	1	1	1024	0.4	539	Disabled	Yes
D71GRP_LOCK1	CF01	Lock	ActivePersistent	63.6	441.1	32	4	0	1536	0.6	0	Disabled	Yes
D71GRP_SCA	CF01	List	ActivePersistent	325.2	151.7	32	4	0	1024	0.4	666	Disabled	Yes
D81GRP_GBP0	CF01	Cache	ActiveInUse	0.5	7.9	64	2	0	1024	0.4	830	Disabled	Yes
D81GRP_GBP8K0	CF01	Cache	ActiveInUse	0.0	0.0	64	1	1	448	0.1	280	Disabled	Yes
D81GRP_LOCK1	CF01	Lock	ActivePersistent	0.0	250.6	7	2	0	768	0.3	0	Disabled	Yes
D81GRP_SCA	CF01	List	ActivePersistent	137.2	103.1	32	2	0	1024	0.4	416	Disabled	Yes
HZS_HEALTHCHKLOG	CF01	List	ActiveInUse	15.6	2.3	32	6	0	1024	0.4	445	Disabled	No
IA1AIRLM	CF01	Lock	ActivePersistent	0.0	0.0	23	1	1	1280	0.5	0	Disabled	Yes
IA1CEMHQ	CF01	List	ActivePersistent	0.0	0.0	32	1	1	1088	0.4	3	Disabled	Yes

Who is using that structure in our CF?



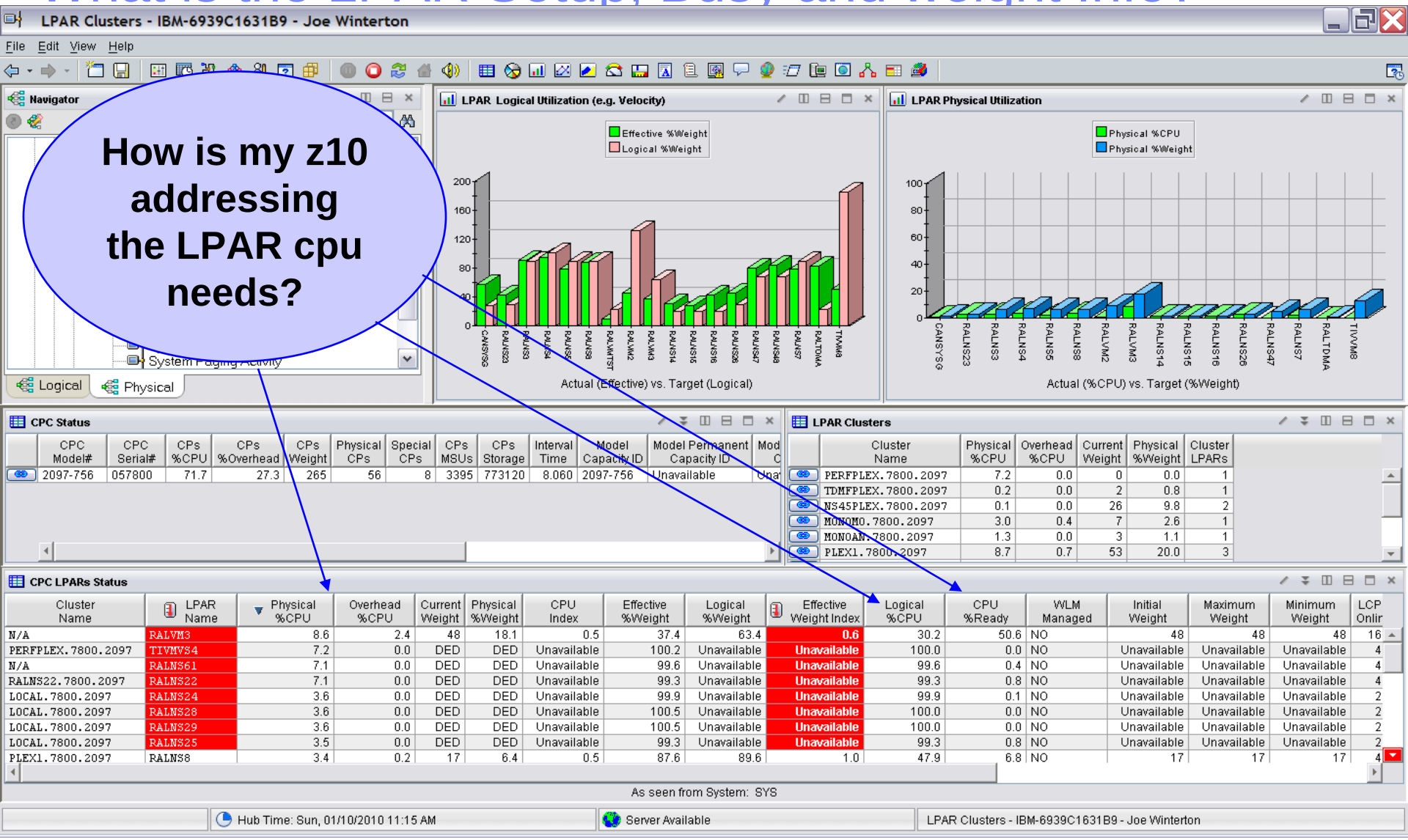
Plex wide Enqueues – RRS in this example?



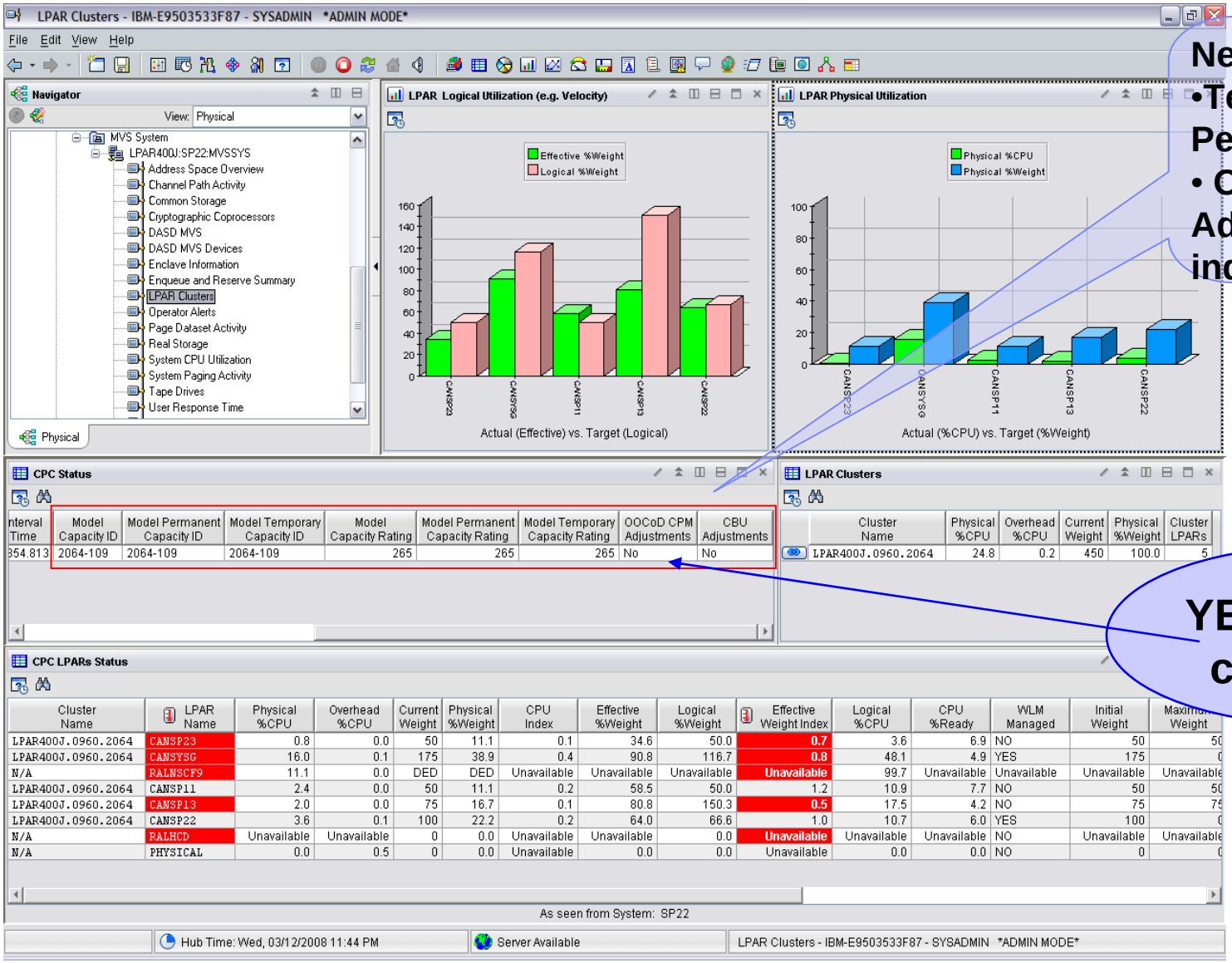
Exploring your z10 and z/OS systems using OMEGAMON XE on z/OS

z10 Processor's – all shapes and sizes

What is the LPAR Setup, Busy and weight Info?



z10 - CPC Capacity Upgrade/Provisioning – 4.2.0



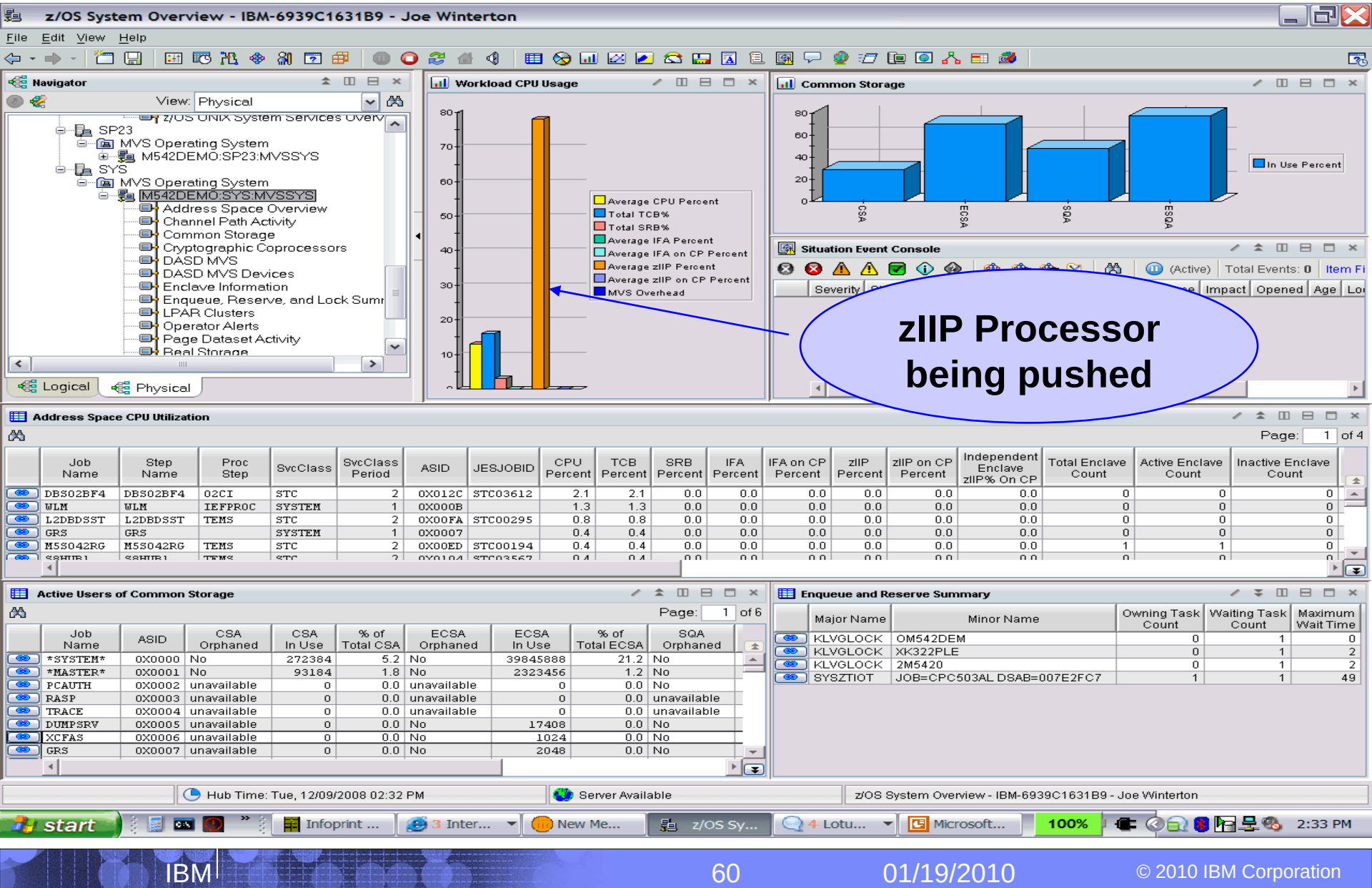
New Attributes:
- **TempModel, ID, Permanent Capacity**
- **OOCoD/CPM, CBU Adjustment indicators**

YES – added capacity !!

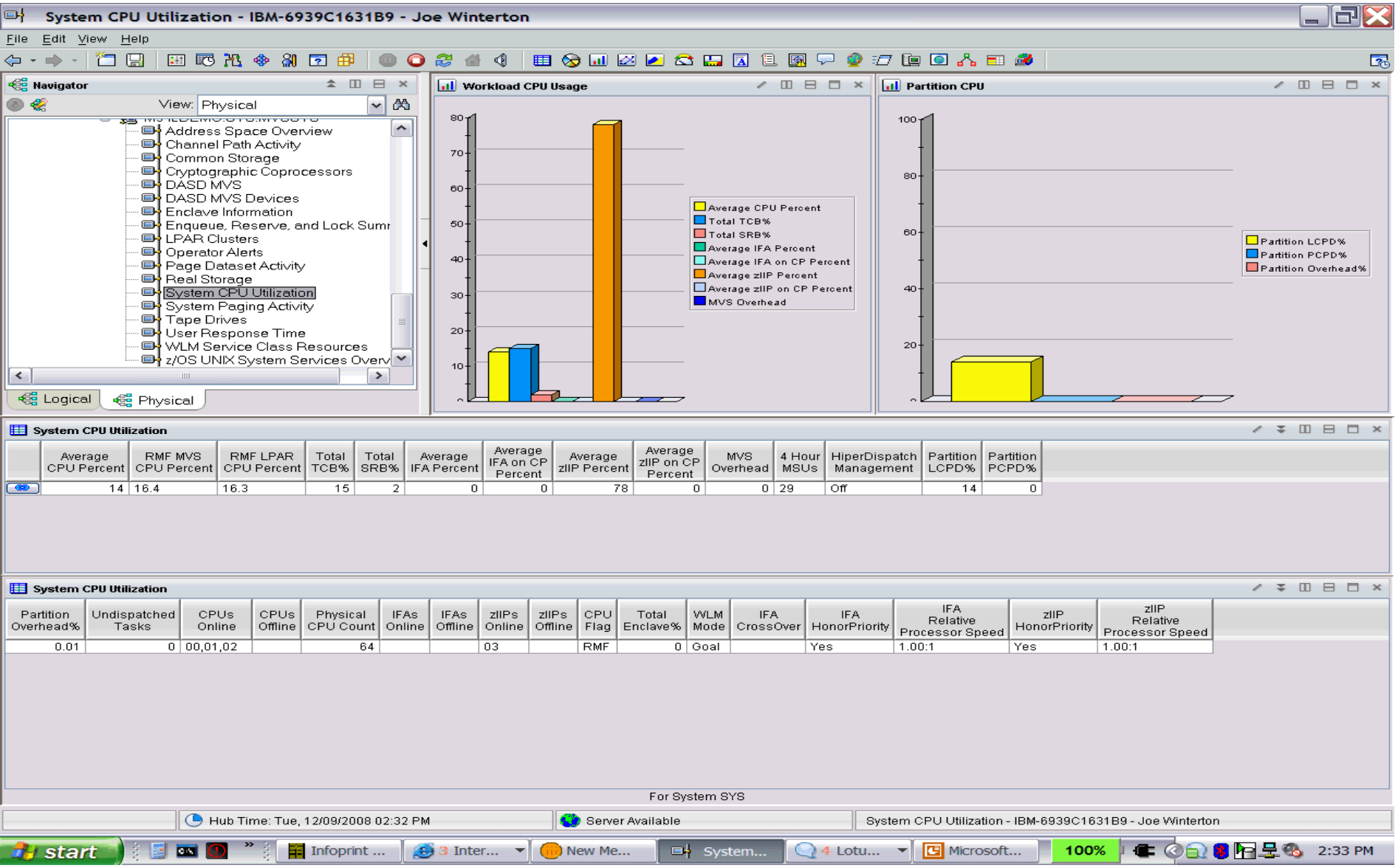
New in 4.2.0 - zIIP exploitation (redirect OMEGAMON collection cycles to zIIP)

- **OMEGAMON XE on z/OS DASD data collection processing is redirected to zIIPs where these are available.**
- **Redirection of processing occurs by default.**
- **zIIP redirection may be disabled by adding a "KM5ZIIPOFFLOAD=NO" statement to the RKANPARU(KDSENV) parm file.**
- **A specific area of OMEGAMON XE DASD analysis was selected for zIIP redirection.**

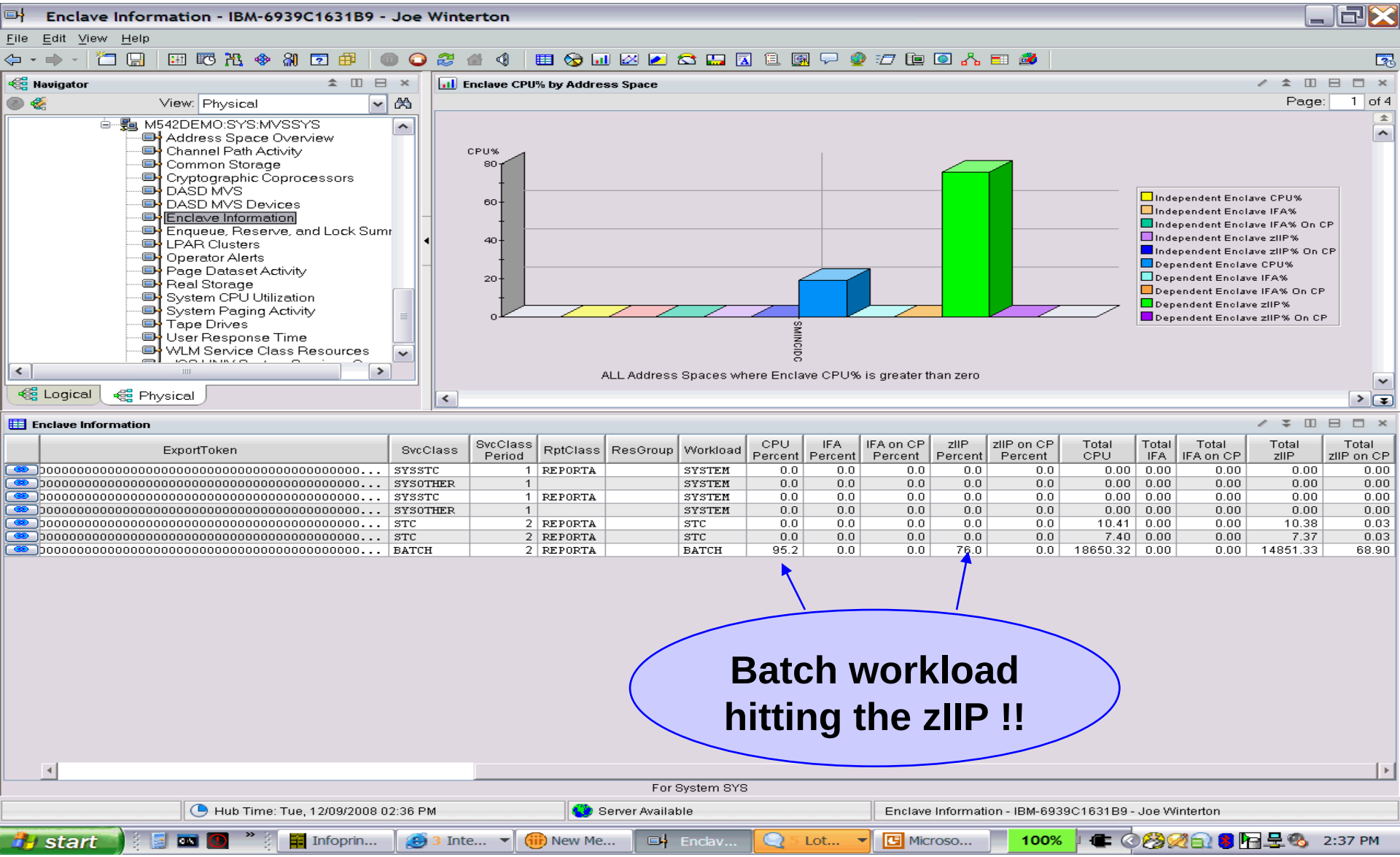
Who is using the zIIP? – look at enclaves?:



What is the zIIP processor doing?:



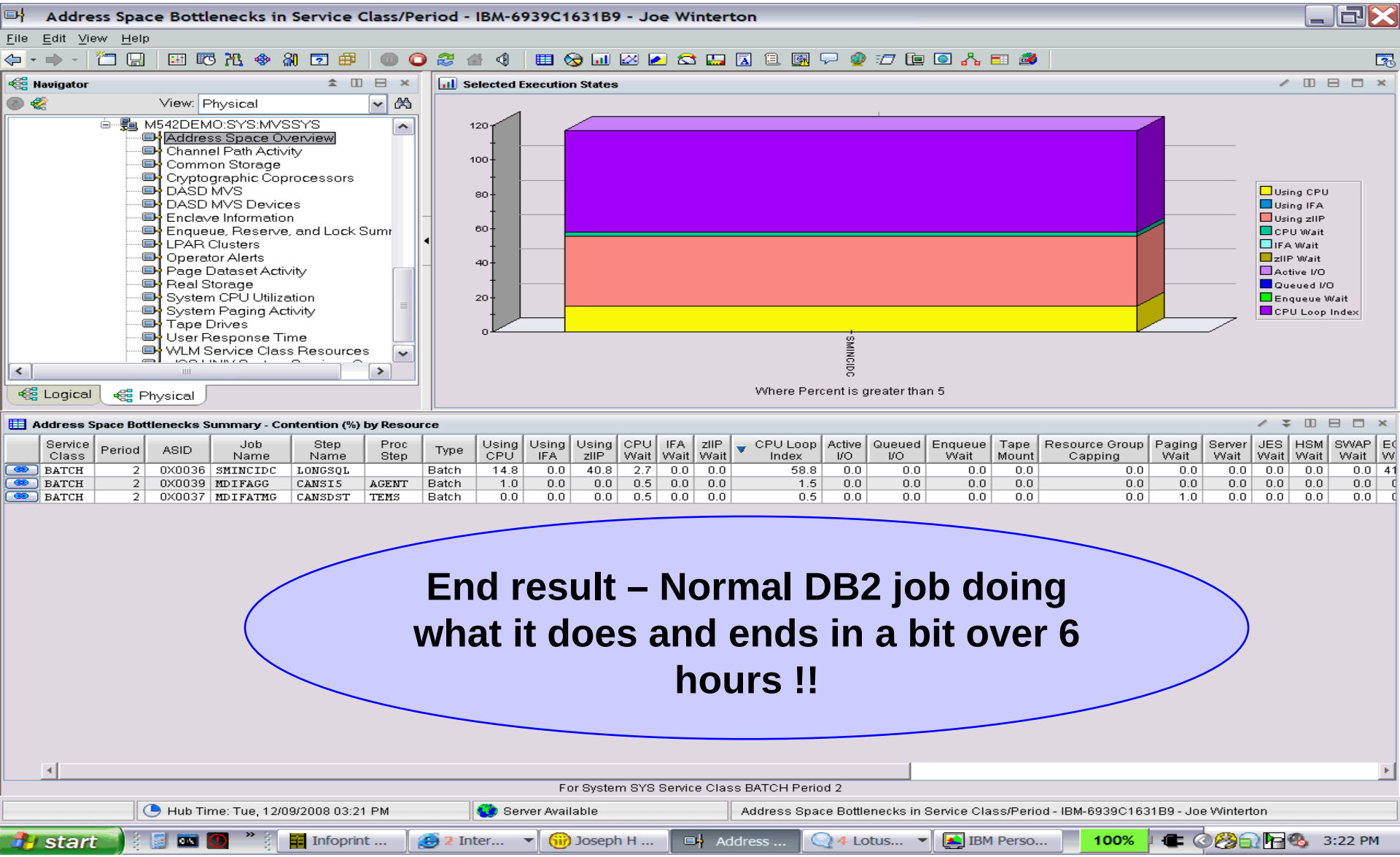
Batch job – Which job is doing what?



ExportToken	SvcClass	SvcClass Period	RptClass	ResGroup	Workload	CPU Percent	IFA Percent	IFA on CP Percent	zIIP Percent	zIIP on CP Percent	Total CPU	Total IFA	Total IFA on CP	Total zIIP	Total zIIP on CP
00000000000000000000000000000000000000000000000000...	SYSSTC	1	REPORTA		SYSTEM	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00
00000000000000000000000000000000000000000000000000...	SYSOTHER	1			SYSTEM	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00
00000000000000000000000000000000000000000000000000...	SYSSTC	1	REPORTA		SYSTEM	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00
00000000000000000000000000000000000000000000000000...	SYSOTHER	1			SYSTEM	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00
00000000000000000000000000000000000000000000000000...	STC	2	REPORTA		STC	0.0	0.0	0.0	0.0	0.0	10.41	0.00	0.00	10.38	0.03
00000000000000000000000000000000000000000000000000...	STC	2	REPORTA		STC	0.0	0.0	0.0	0.0	0.0	7.40	0.00	0.00	7.37	0.03
00000000000000000000000000000000000000000000000000...	BATCH	2	REPORTA		BATCH	95.2	0.0	0.0	76.0	0.0	18650.32	0.00	0.00	14851.33	68.90

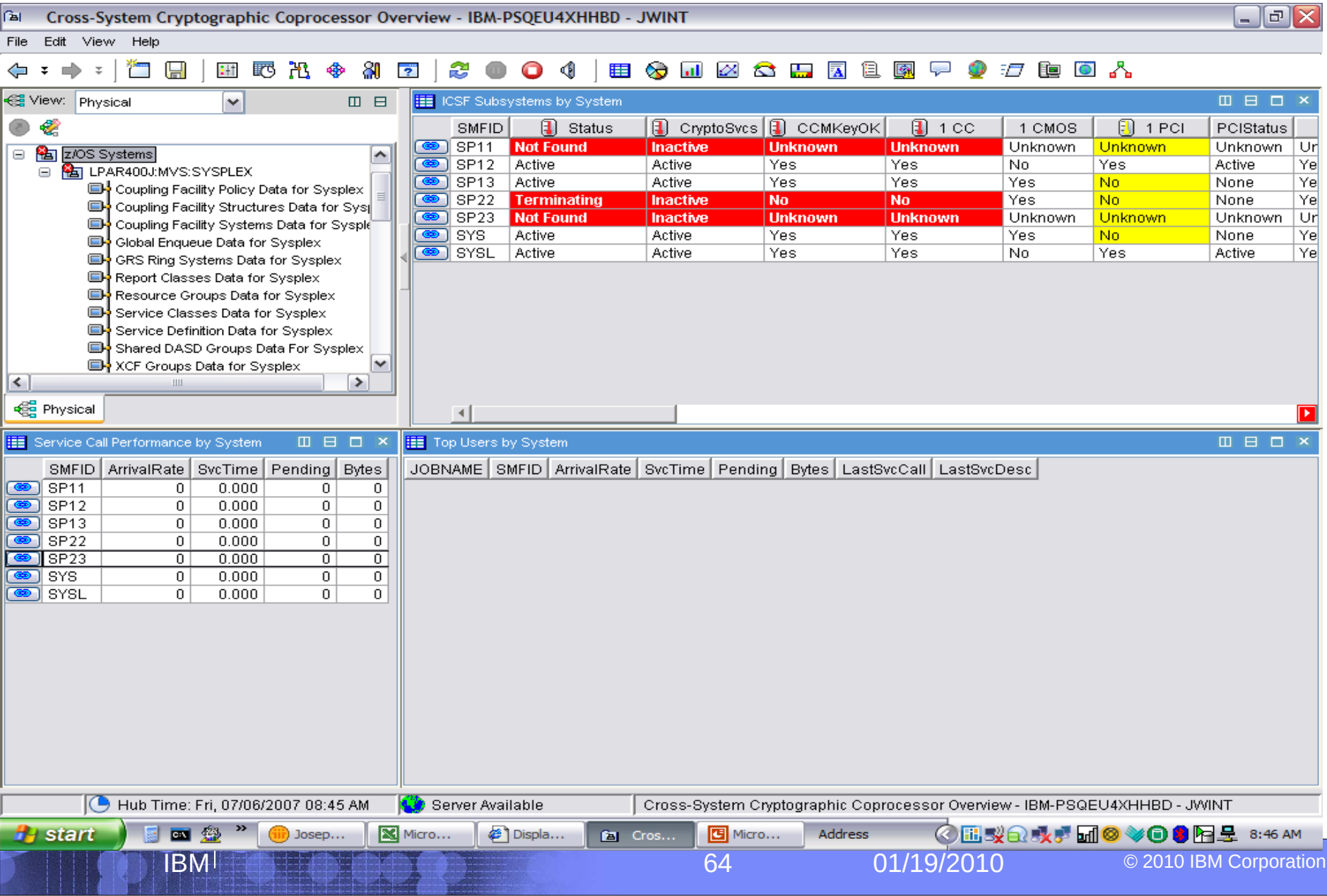
Batch workload hitting the zIIP !!

SMINCIDC LONG SQL – lots of GETPAGES:

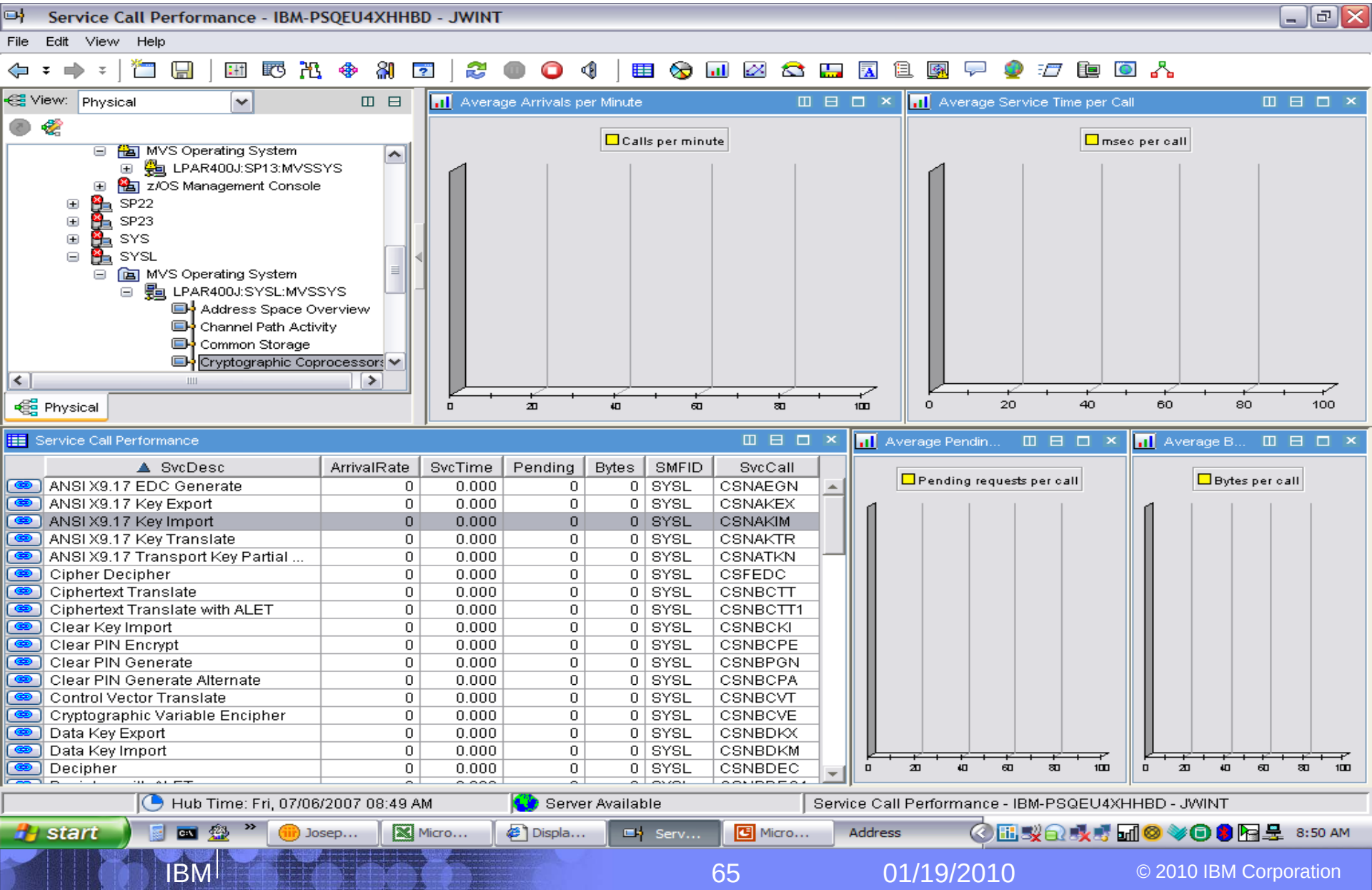


End result – Normal DB2 job doing what it does and ends in a bit over 6 hours !!

ICSF status in the Plex



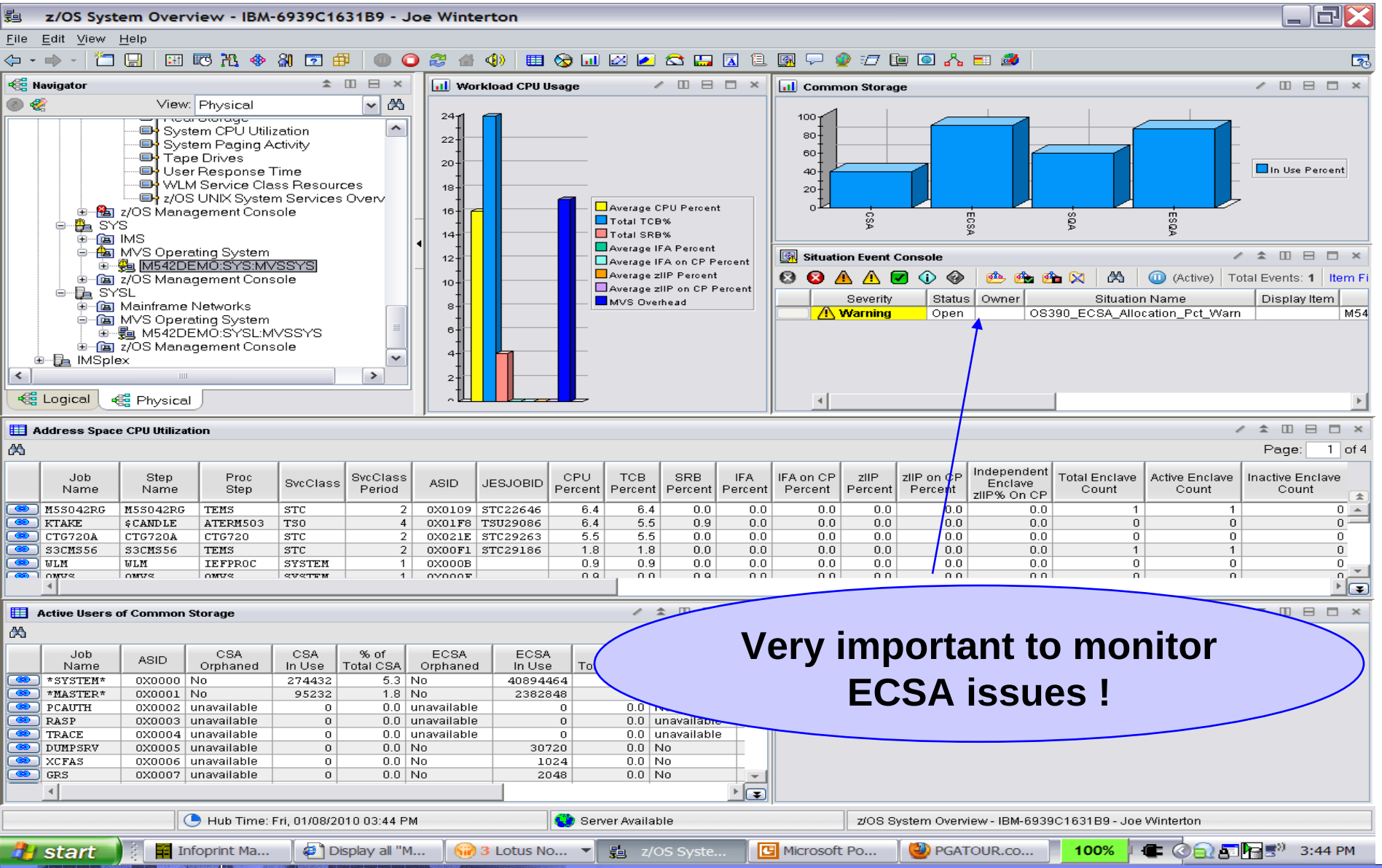
Service Call Performance – for the LPAR



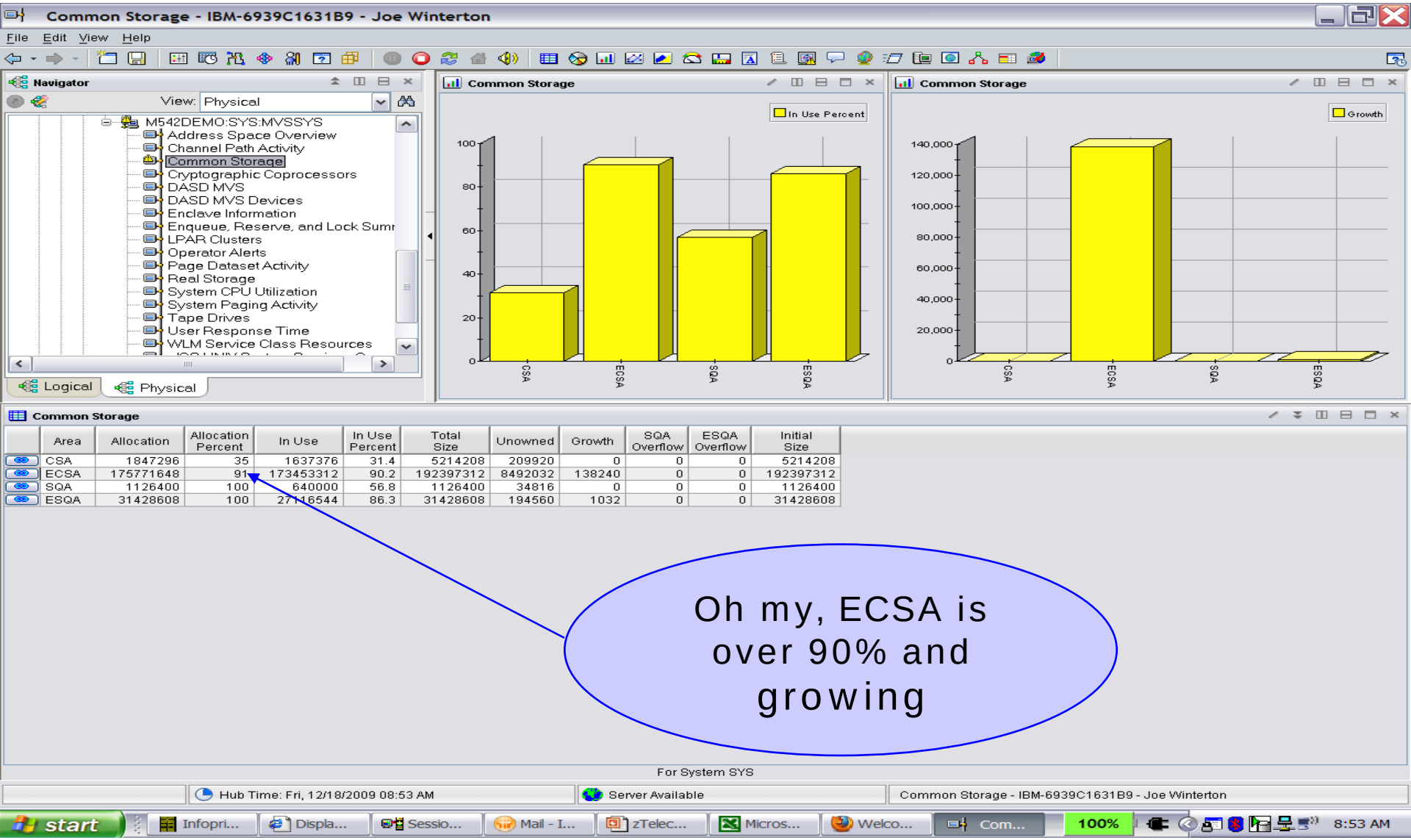
Exploring your z10 and z/OS systems using OMEGAMON XE on z/OS

What's up with z/OS Virtual and Real Storage ?

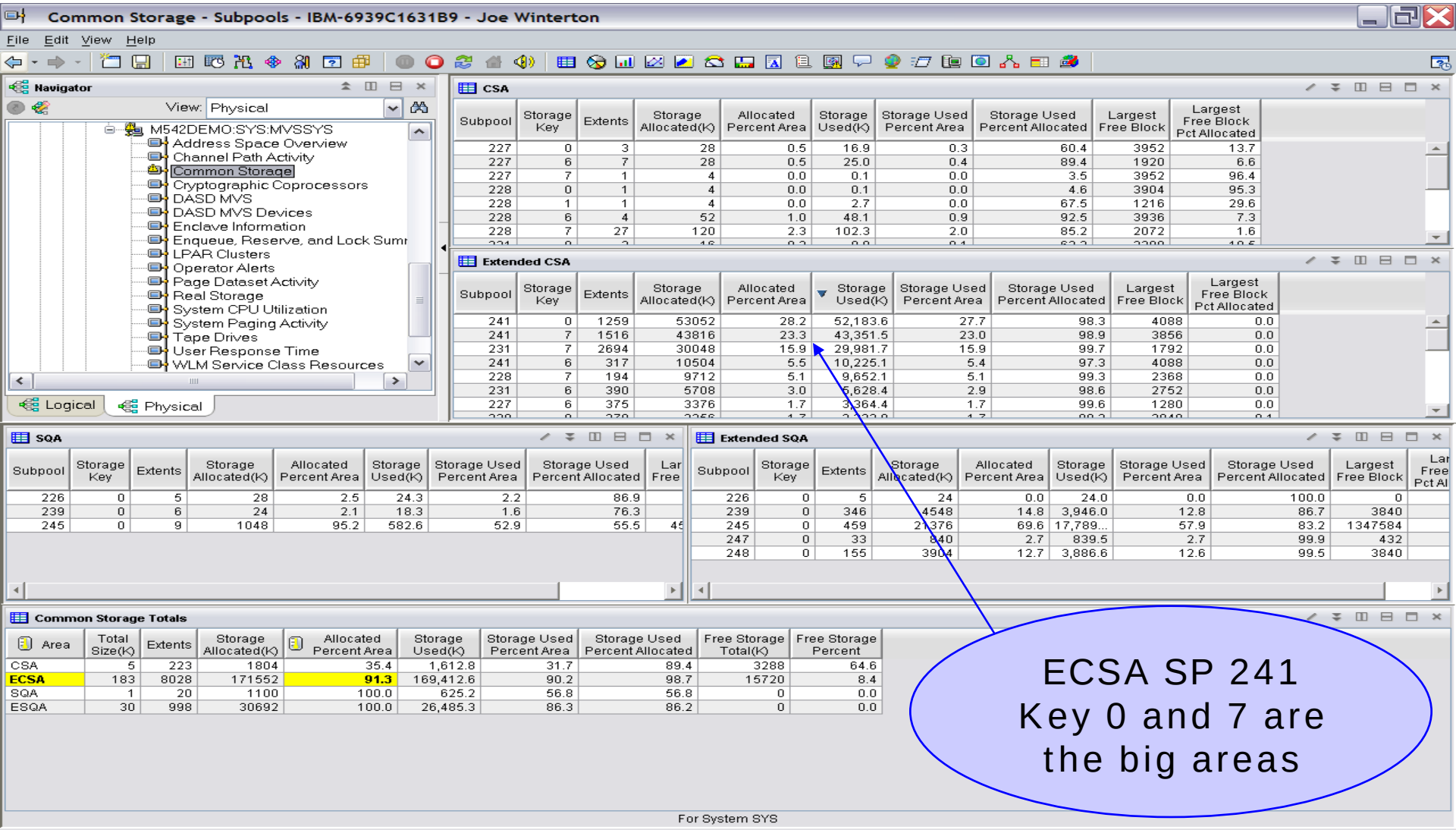
LPAR - ECSA Allocation Warning



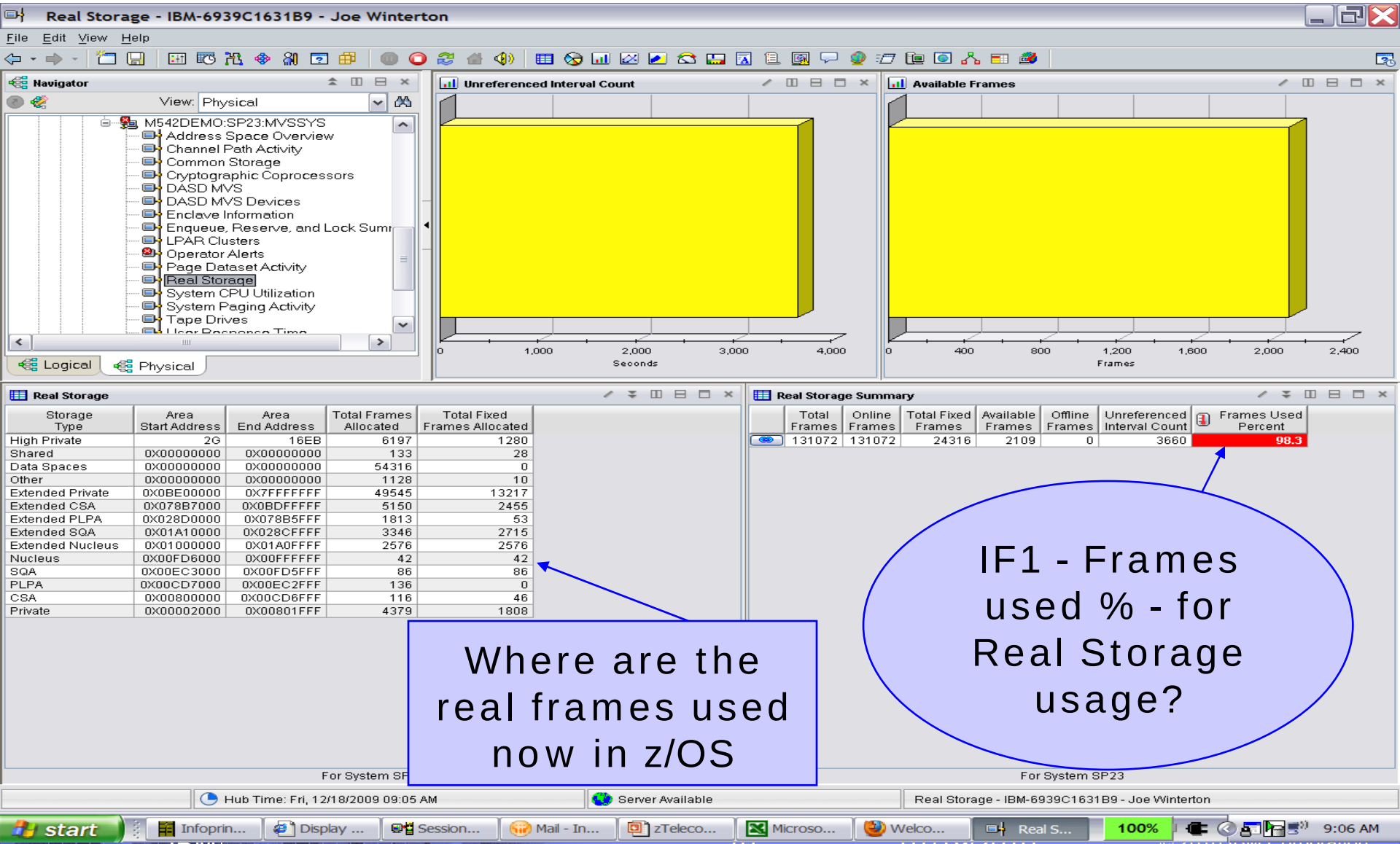
LPAR view of Common Virtual Storage usage



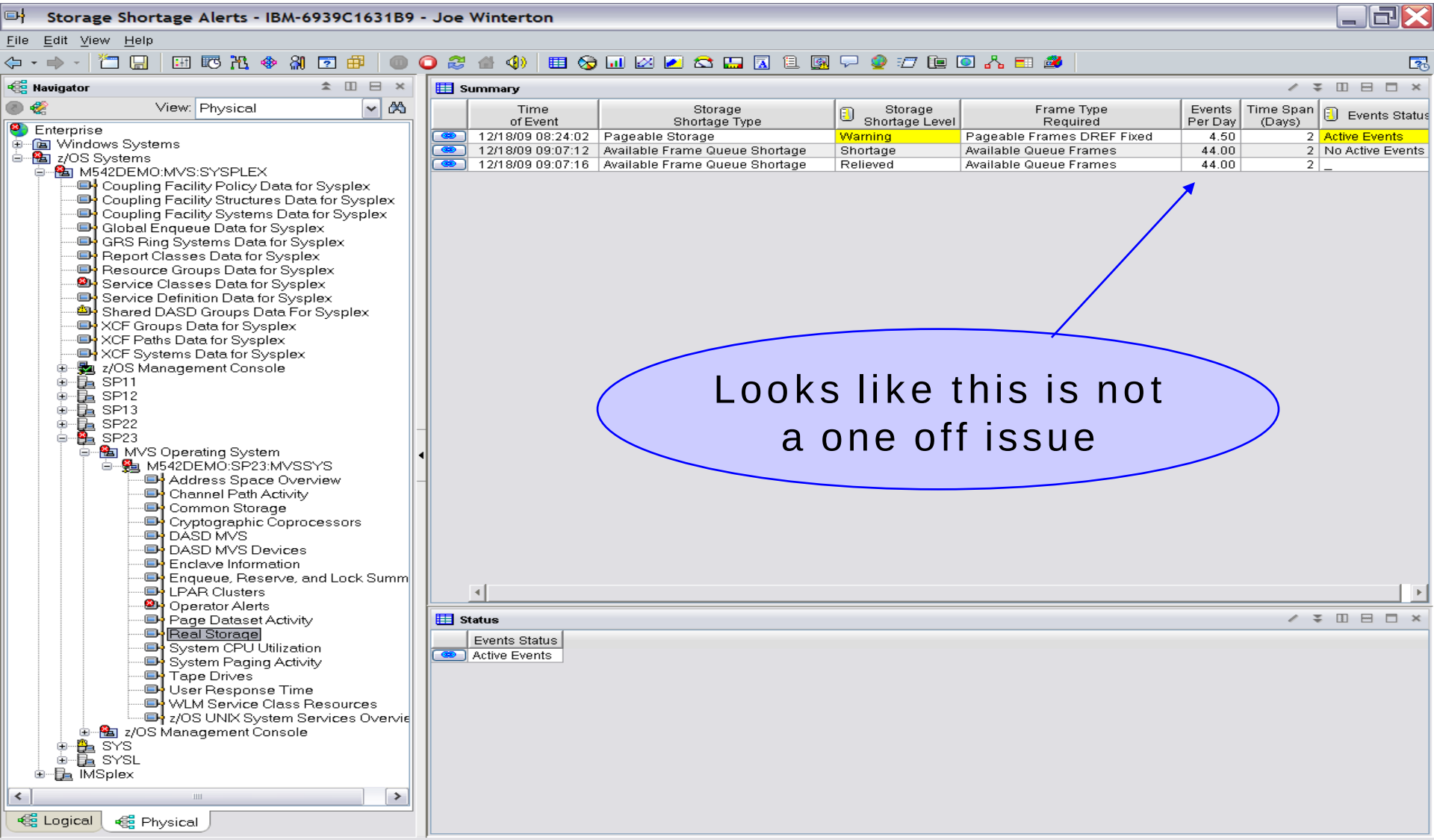
IF1 - Common Storage subpools and key usage view



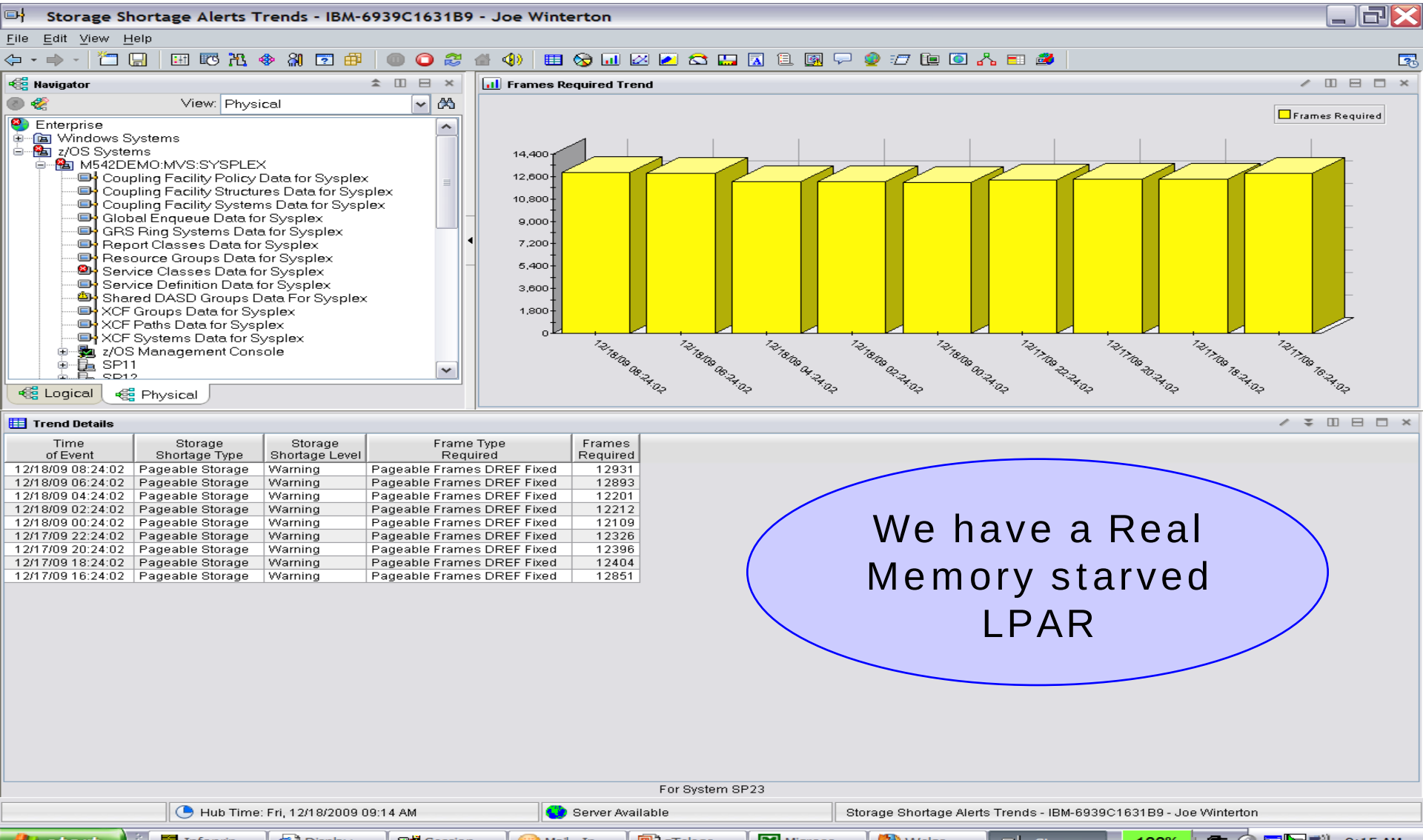
The “Real Storage” LPAR usage view



The “Real Storage” z/OS alert is active now

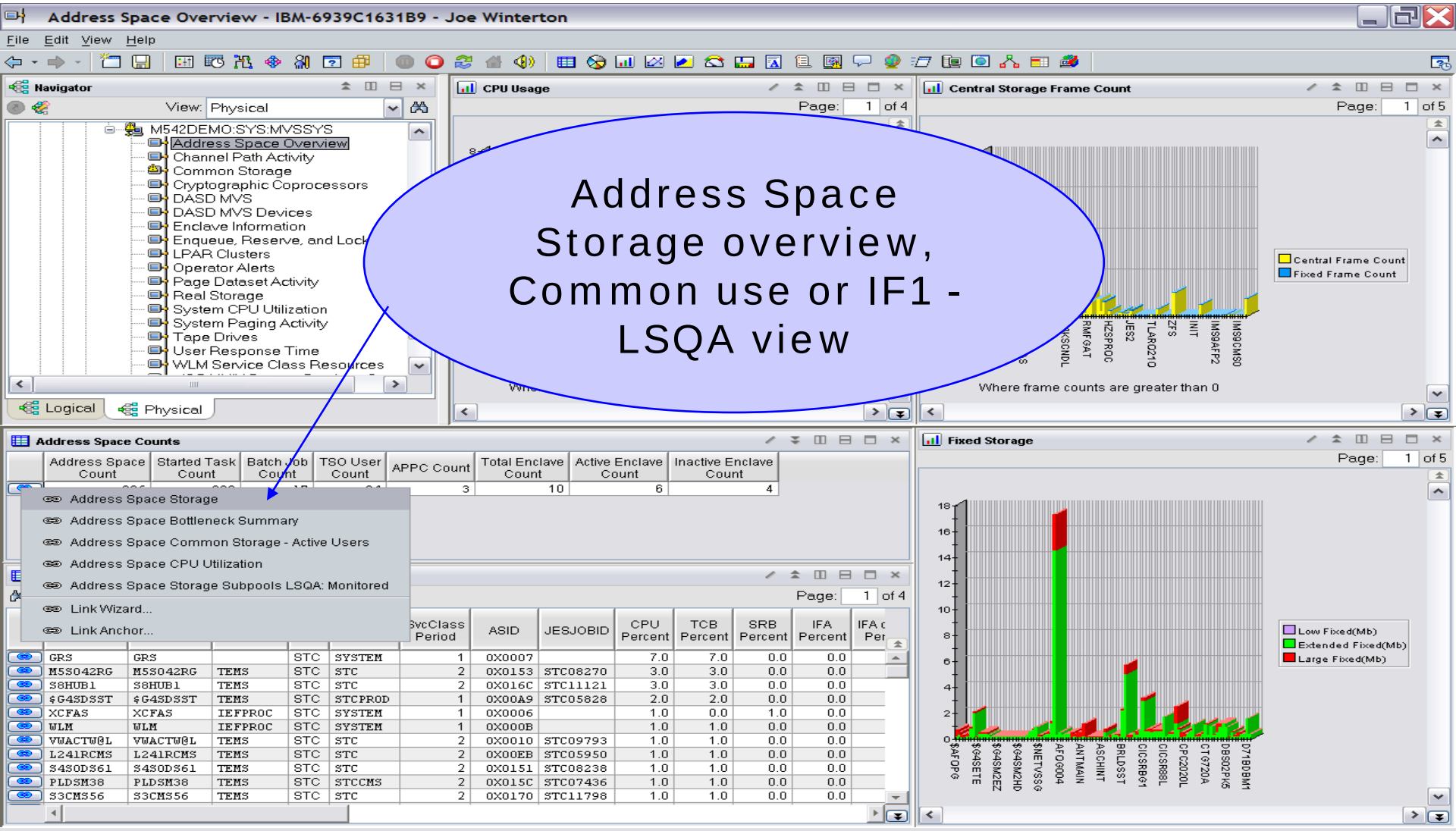


The “Real Storage” Alert trends on the LPAR

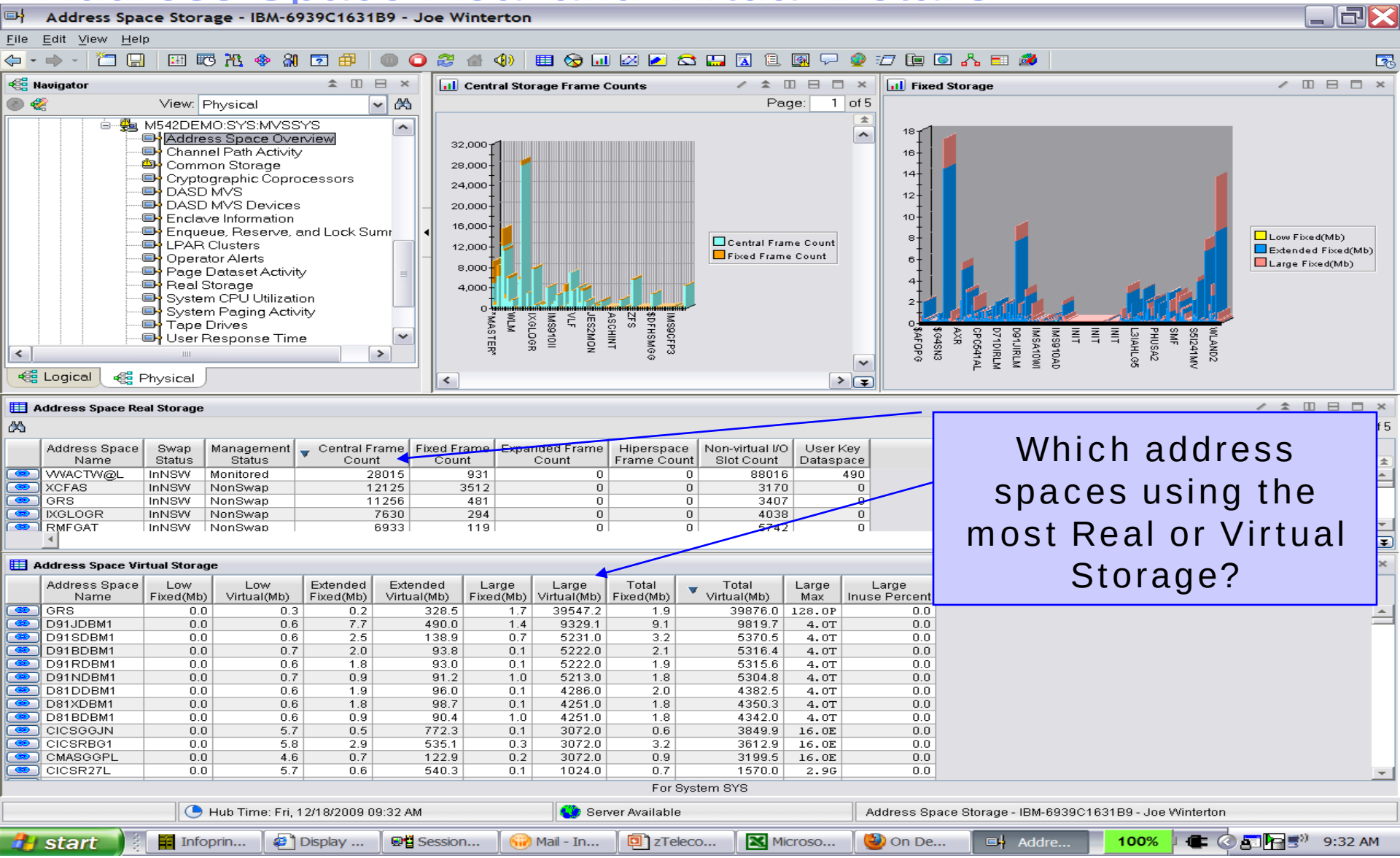


We have a Real Memory starved LPAR

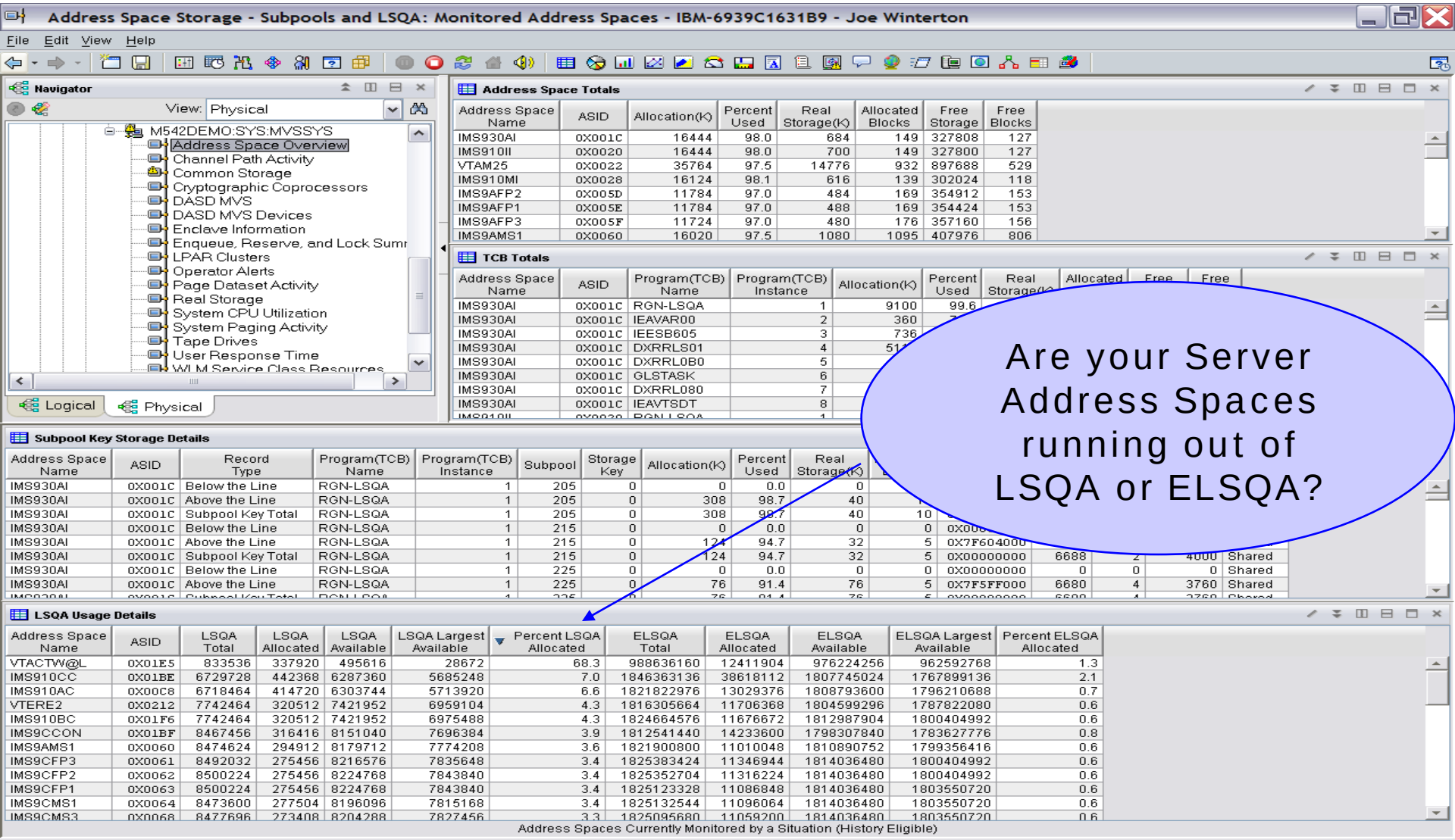
Address Space usage of Storage -overview

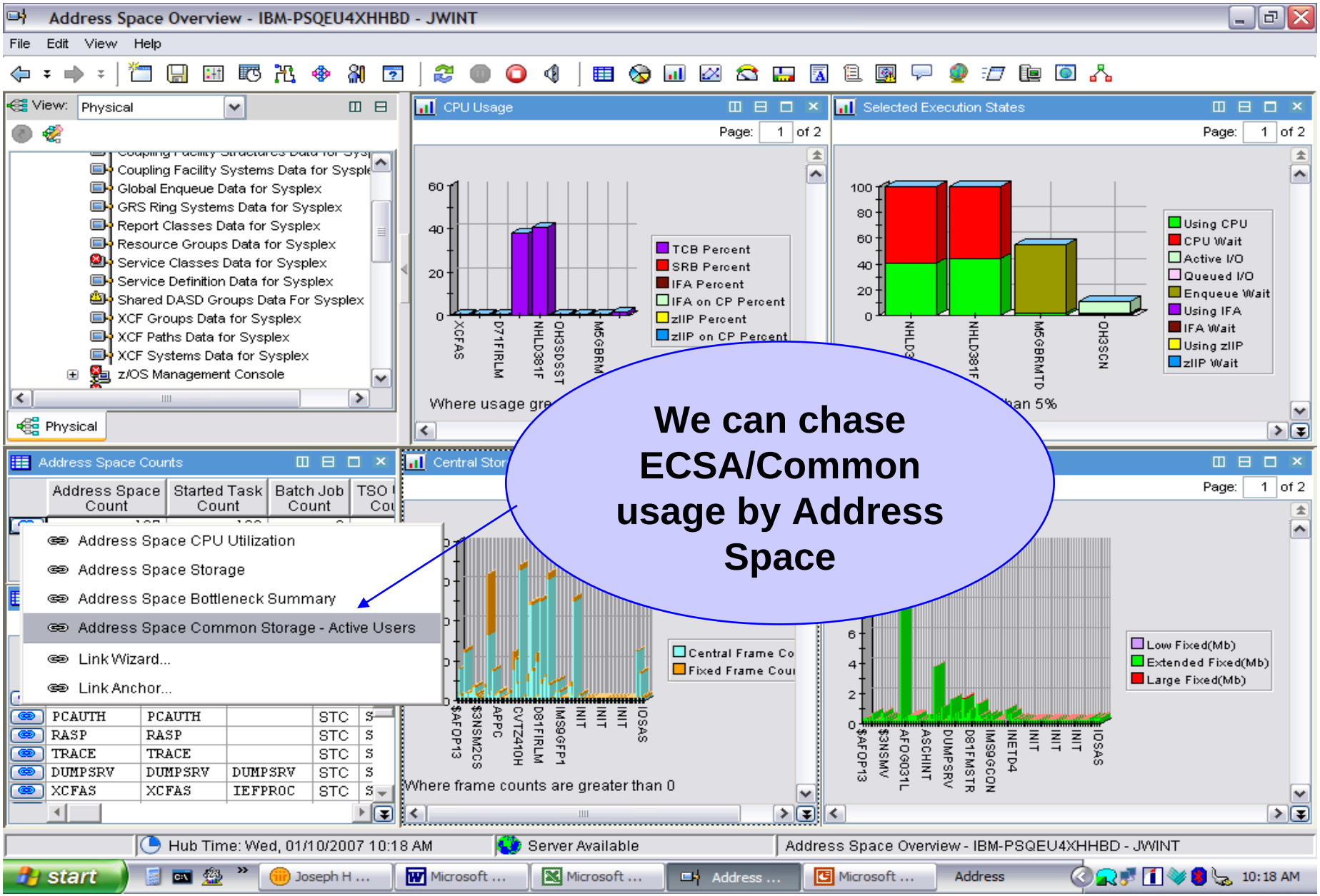


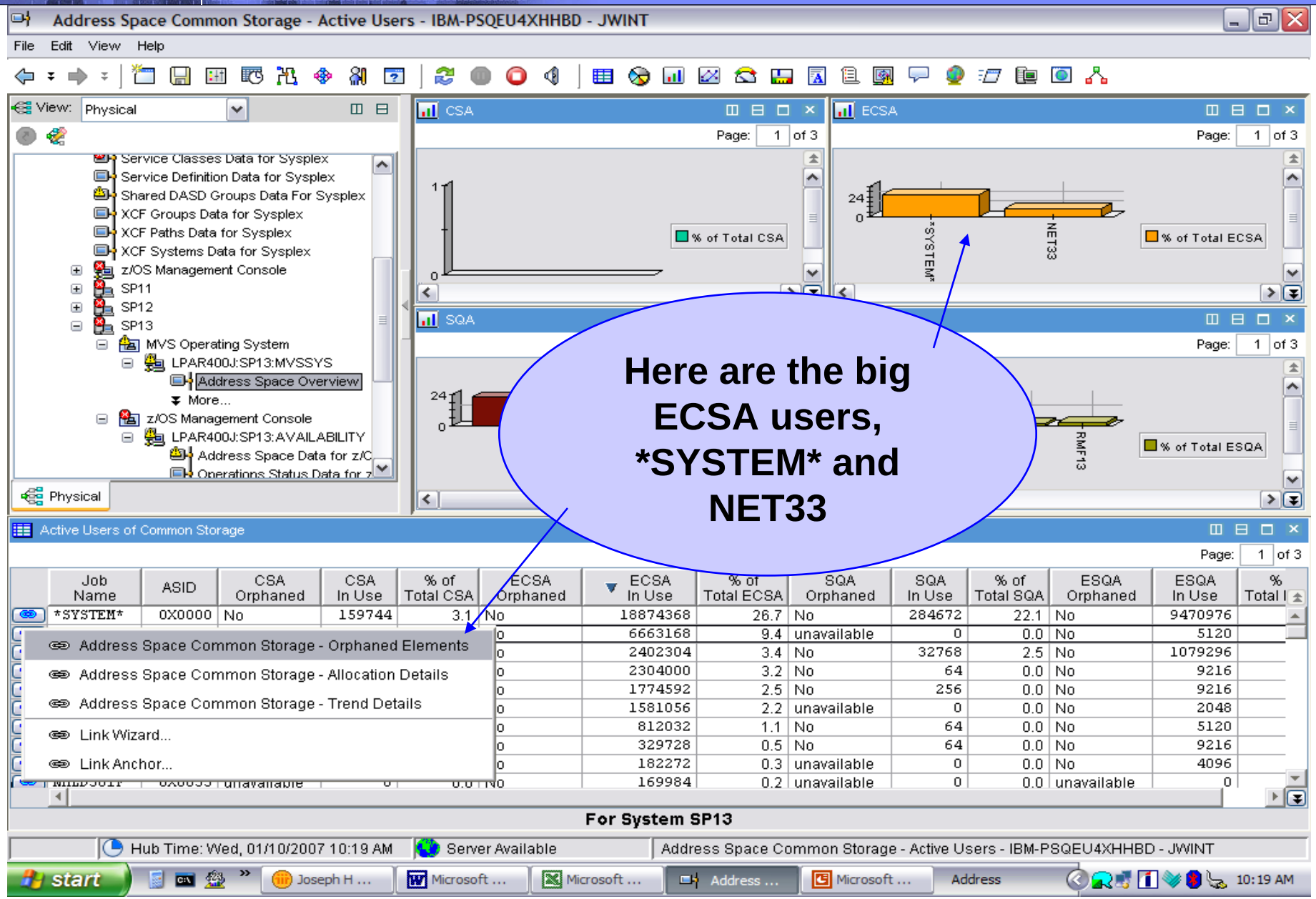
Address Space Real and Virtual Details

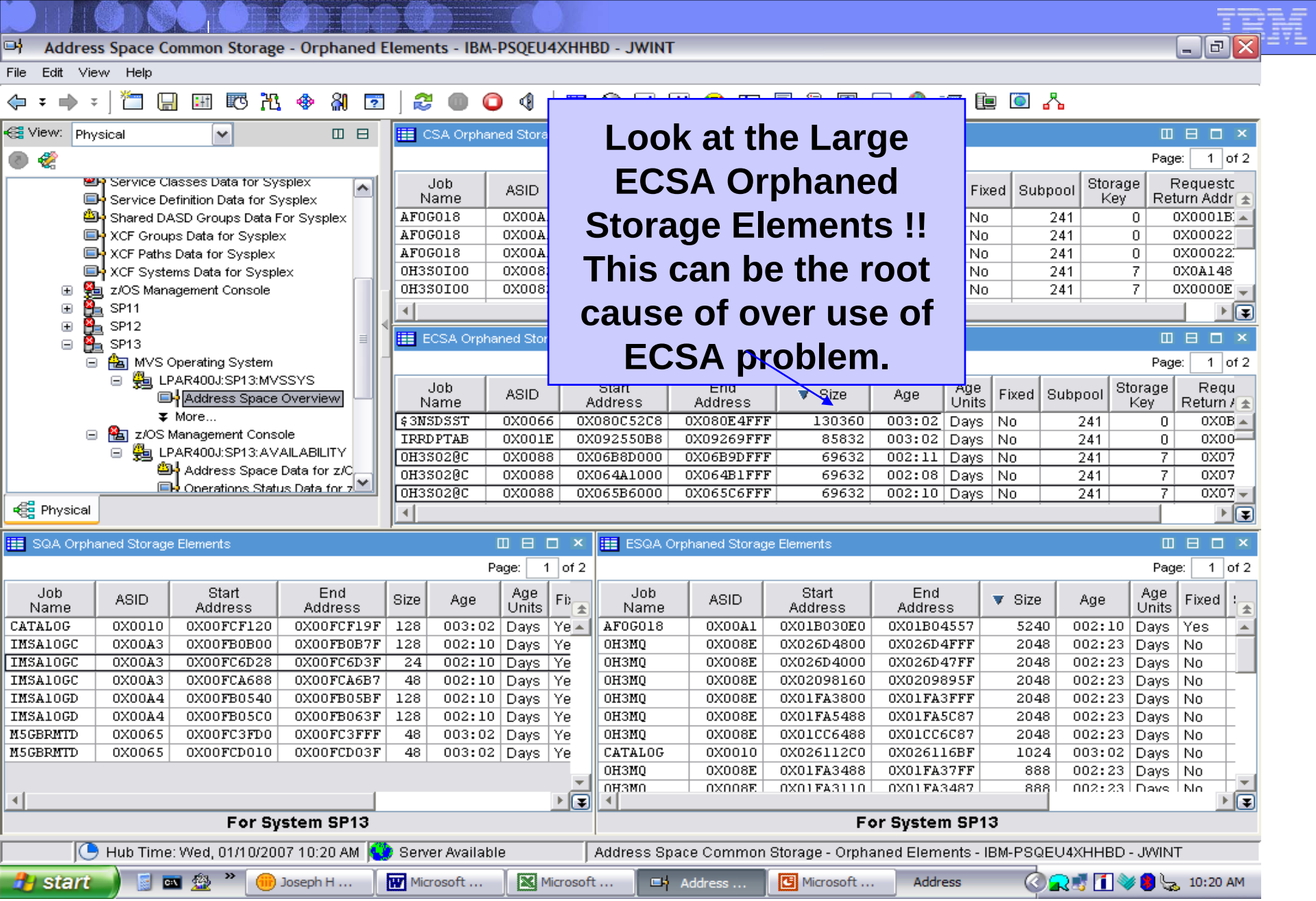


Monitored Address space LSQA usage – IF1





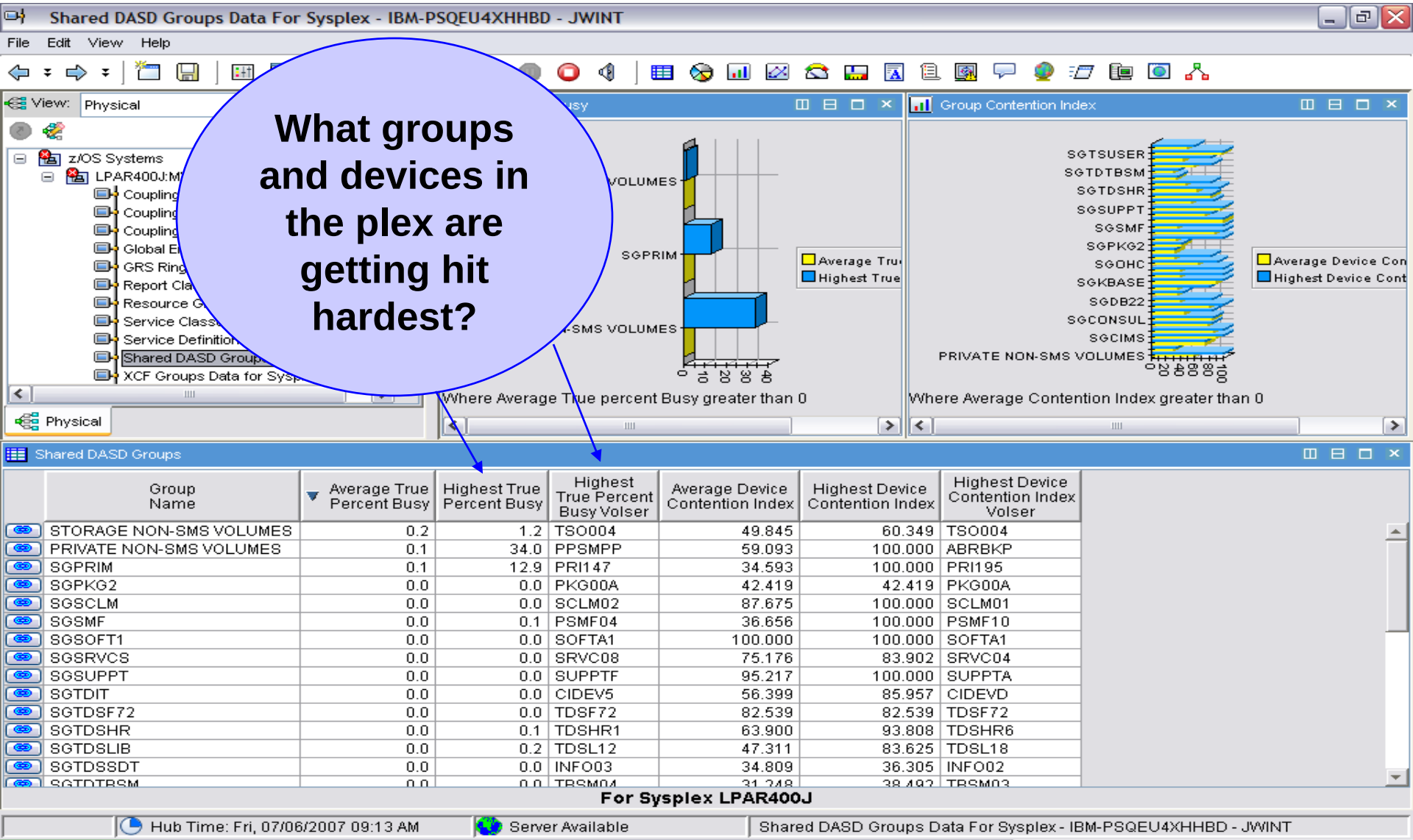




Exploring your z10 and z/OS systems using OMEGAMON XE on z/OS

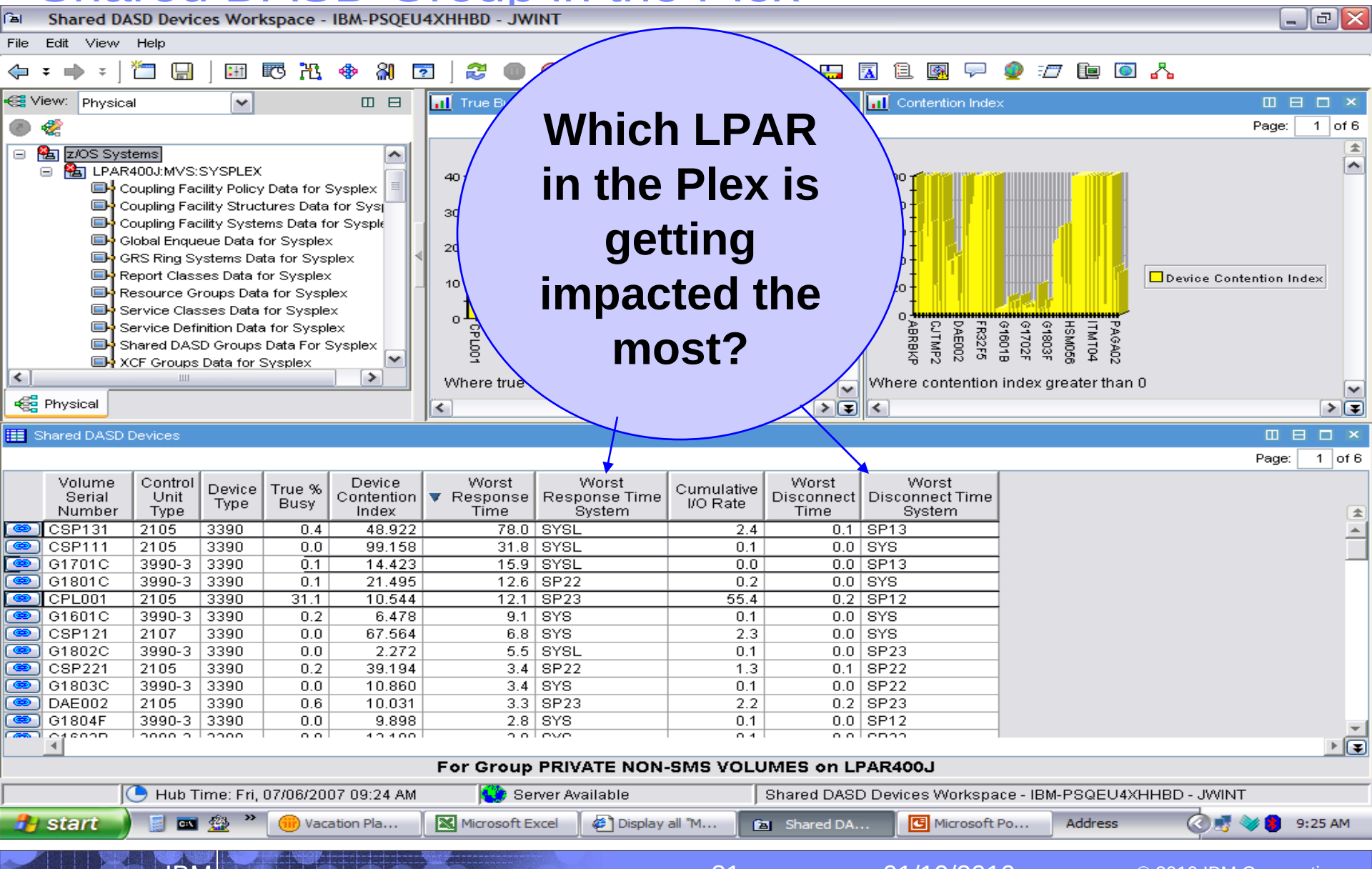
z/OS DASD, DASD and more DASD

Shared DASD Groups in the Sysplex



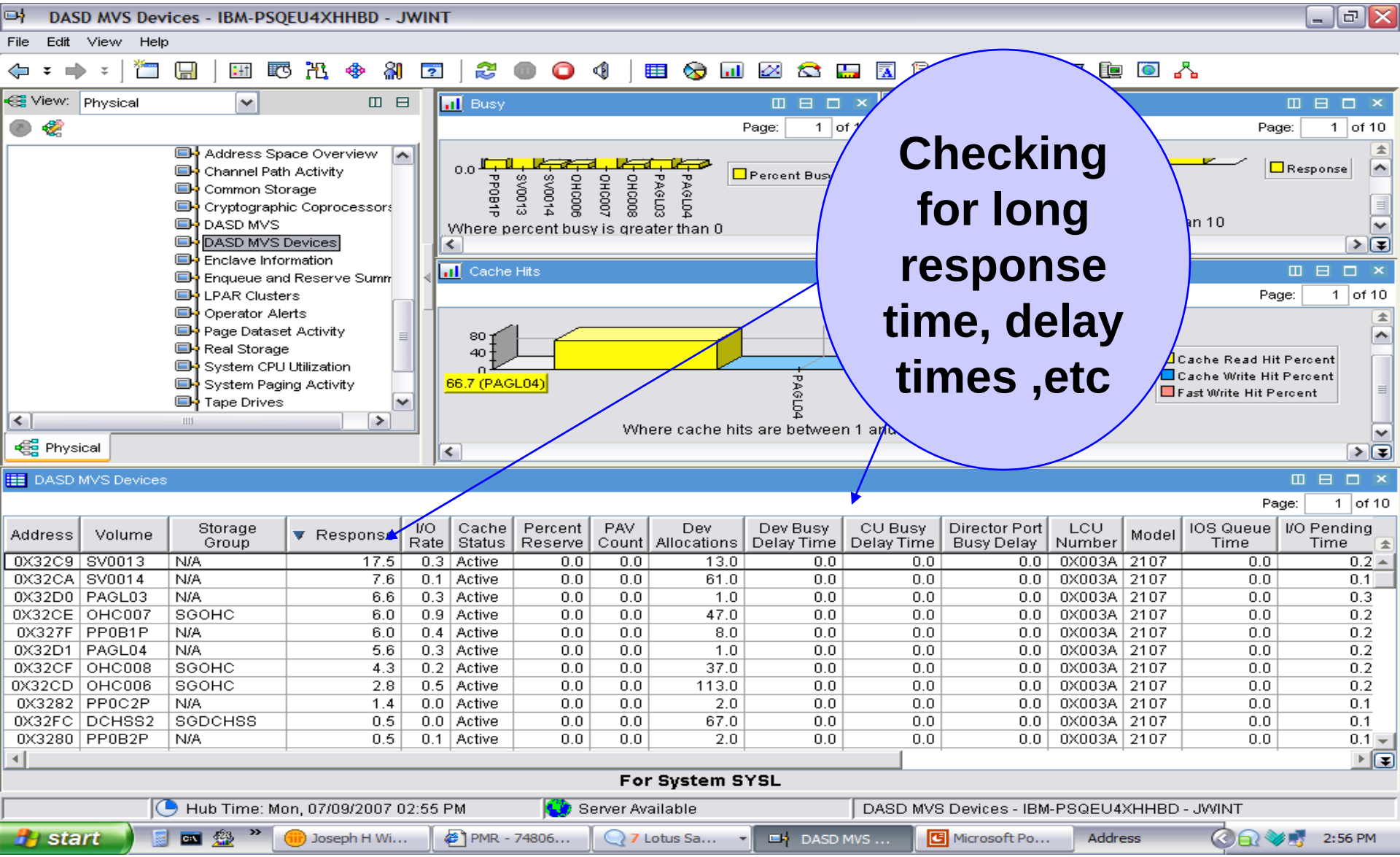
Group Name	Average True Percent Busy	Highest True Percent Busy	Highest True Percent Busy Volser	Average Device Contention Index	Highest Device Contention Index	Highest Device Contention Index Volser
STORAGE NON-SMS VOLUMES	0.2	1.2	TSO004	49.845	60.349	TSO004
PRIVATE NON-SMS VOLUMES	0.1	34.0	PPSMPP	59.093	100.000	ABRBKP
SGPRIM	0.1	12.9	PRI147	34.593	100.000	PRI195
SGPKG2	0.0	0.0	PKG00A	42.419	42.419	PKG00A
SGSCLM	0.0	0.0	SCLM02	87.675	100.000	SCLM01
SGSMF	0.0	0.1	PSMF04	36.656	100.000	PSMF10
SGSOFT1	0.0	0.0	SOFTA1	100.000	100.000	SOFTA1
SGSRVCS	0.0	0.0	SRVC08	75.176	83.902	SRVC04
SGSUPPT	0.0	0.0	SUPPTF	95.217	100.000	SUPPTA
SGTDIT	0.0	0.0	CIDEV5	56.399	85.957	CIDEVD
SGTDSF72	0.0	0.0	TDSF72	82.539	82.539	TDSF72
SGTDSHR	0.0	0.1	TDSHR1	63.900	93.808	TDSHR6
SGTDSLIB	0.0	0.2	TDSL12	47.311	83.625	TDSL18
SGTDSSDT	0.0	0.0	INFO03	34.809	36.305	INFO02
SGTDTBSM	0.0	0.0	TBSM04	31.248	38.492	TBSM03

Shared DASD Group in the Plex



Volume Serial Number	Control Unit Type	Device Type	True % Busy	Device Contention Index	Worst Response Time	Worst Response Time System	Cumulative I/O Rate	Worst Disconnect Time	Worst Disconnect Time System
CSP131	2105	3390	0.4	48.922	78.0	SYSL	2.4	0.1	SP13
CSP111	2105	3390	0.0	99.158	31.8	SYSL	0.1	0.0	SYS
G1701C	3990-3	3390	0.1	14.423	15.9	SYSL	0.0	0.0	SP13
G1801C	3990-3	3390	0.1	21.495	12.6	SP22	0.2	0.0	SYS
CPL001	2105	3390	31.1	10.544	12.1	SP23	55.4	0.2	SP12
G1601C	3990-3	3390	0.2	6.478	9.1	SYS	0.1	0.0	SYS
CSP121	2107	3390	0.0	67.564	6.8	SYS	2.3	0.0	SYS
G1802C	3990-3	3390	0.0	2.272	5.5	SYSL	0.1	0.0	SP23
CSP221	2105	3390	0.2	39.194	3.4	SP22	1.3	0.1	SP22
G1803C	3990-3	3390	0.0	10.860	3.4	SYS	0.1	0.0	SP22
DAE002	2105	3390	0.6	10.031	3.3	SP23	2.2	0.2	SP23
G1804F	3990-3	3390	0.0	9.898	2.8	SYS	0.1	0.0	SP12

LPAR – z/OS DASD view

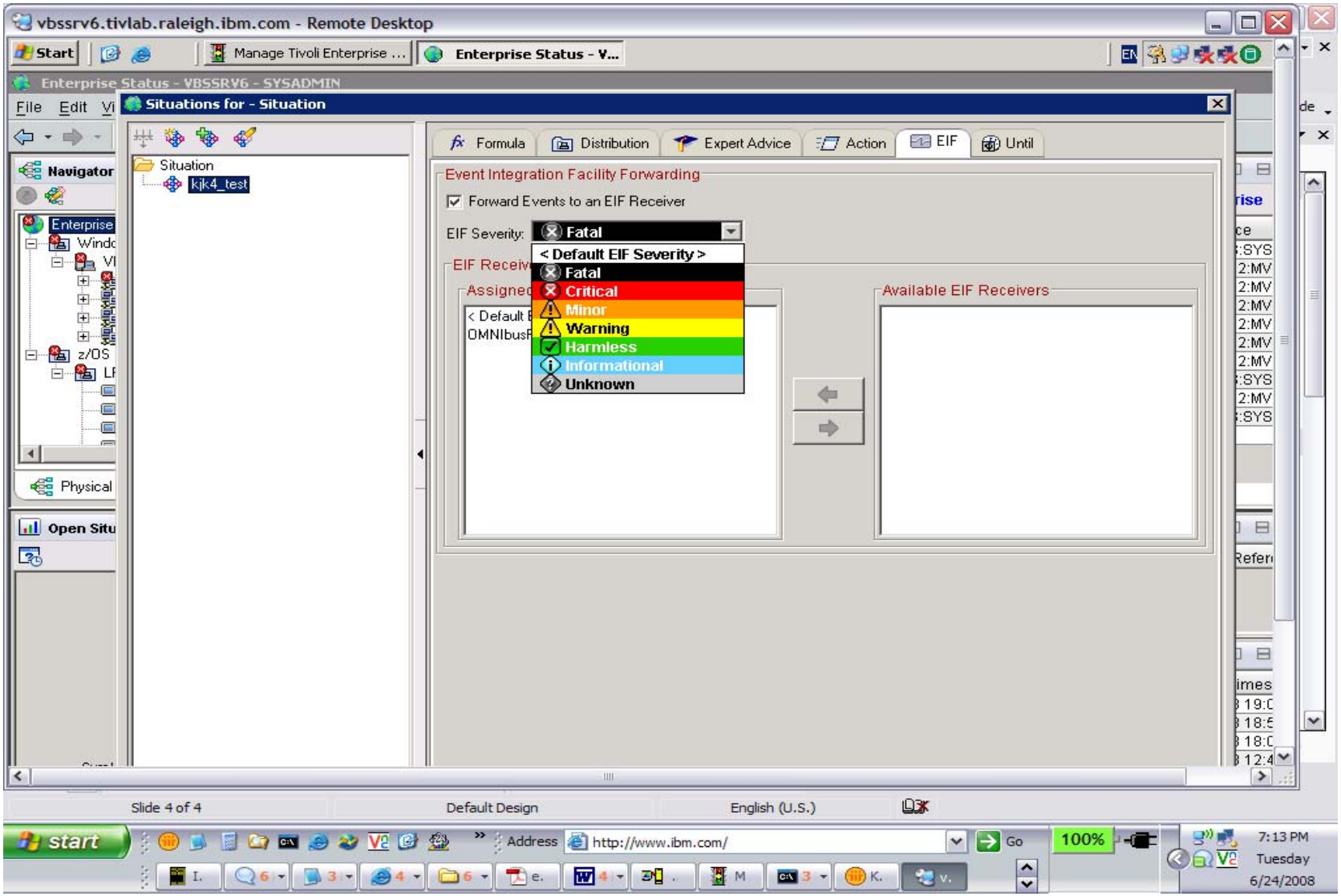


Address	Volume	Storage Group	Respons	I/O Rate	Cache Status	Percent Reserve	PAV Count	Dev Allocations	Dev Busy Delay Time	CU Busy Delay Time	Director Port Busy Delay	LCU Number	Model	IOS Queue Time	I/O Pending Time
0X32C9	SV0013	N/A	17.5	0.3	Active	0.0	0.0	13.0	0.0	0.0	0.0	0X003A	2107	0.0	0.2
0X32CA	SV0014	N/A	7.6	0.1	Active	0.0	0.0	61.0	0.0	0.0	0.0	0X003A	2107	0.0	0.1
0X32D0	PAGL03	N/A	6.6	0.3	Active	0.0	0.0	1.0	0.0	0.0	0.0	0X003A	2107	0.0	0.3
0X32CE	OHC007	SGOHC	6.0	0.9	Active	0.0	0.0	47.0	0.0	0.0	0.0	0X003A	2107	0.0	0.2
0X327F	PP0B1P	N/A	6.0	0.4	Active	0.0	0.0	8.0	0.0	0.0	0.0	0X003A	2107	0.0	0.2
0X32D1	PAGL04	N/A	5.6	0.3	Active	0.0	0.0	1.0	0.0	0.0	0.0	0X003A	2107	0.0	0.2
0X32CF	OHC008	SGOHC	4.3	0.2	Active	0.0	0.0	37.0	0.0	0.0	0.0	0X003A	2107	0.0	0.2
0X32CD	OHC006	SGOHC	2.8	0.5	Active	0.0	0.0	113.0	0.0	0.0	0.0	0X003A	2107	0.0	0.2
0X3282	PP0C2P	N/A	1.4	0.0	Active	0.0	0.0	2.0	0.0	0.0	0.0	0X003A	2107	0.0	0.1
0X32FC	DCHSS2	SGDCHSS	0.5	0.0	Active	0.0	0.0	67.0	0.0	0.0	0.0	0X003A	2107	0.0	0.1
0X3280	PP0B2P	N/A	0.5	0.1	Active	0.0	0.0	2.0	0.0	0.0	0.0	0X003A	2107	0.0	0.1

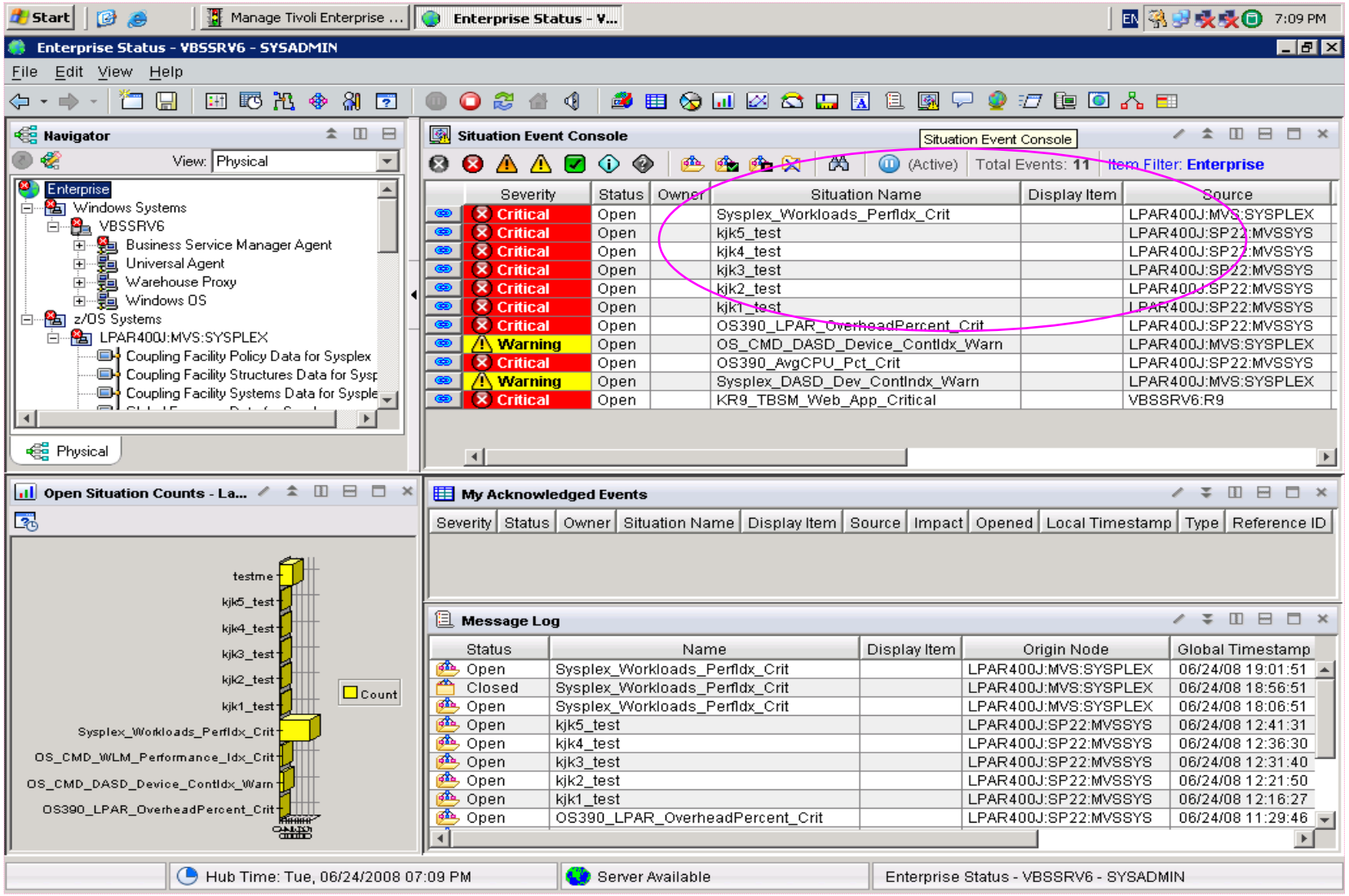
Tivoli Event Console (TEC) and Netcool/OMINbus event forwarding enablement- 4.2.0

- With Tivoli Enterprise Console (TEC) or Netcool/OMNIbus, in addition to IBM Tivoli Monitoring, to manage events, you can now forward events reported by OMEGAMON XE on z/OS monitoring agents to these event management products.
- Before events can be forwarded, event forwarding must be enabled on the hub monitoring server, and a default destination server must be defined. In addition, the TEC or Netcool/OMNIbus server (the event server) must be configured to receive the events, a forwarding process must be installed on the event server, and, for events forwarded to TEC a baroc file for the agent must be installed and imported on the event server.
- After situation forwarding is enabled, by default all situation events are forwarded to the specified event server. However, you can customize which situation events are forwarded and to which event server, using the Situation editor in the Tivoli Enterprise Portal.

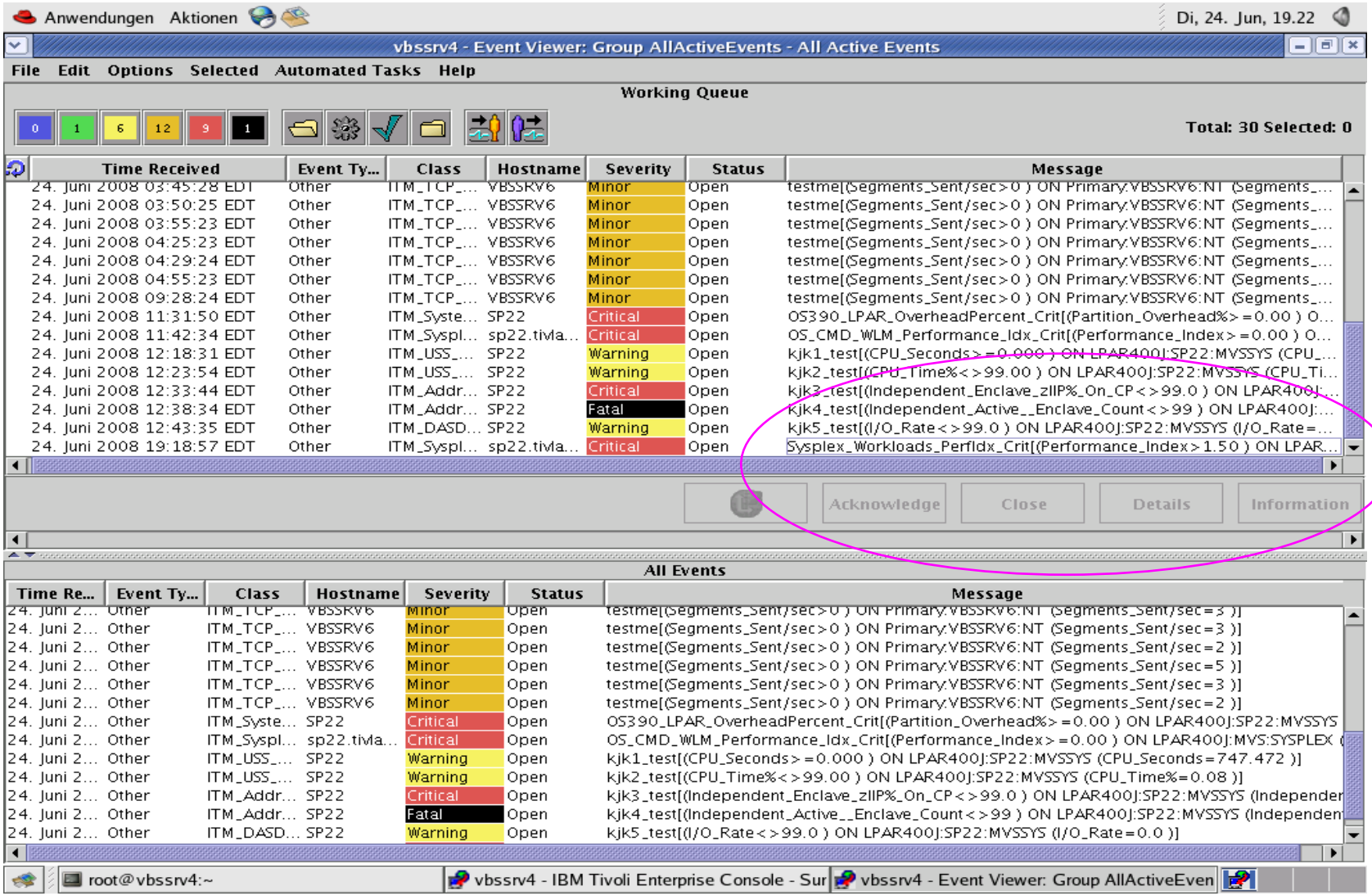
Tivoli Event Console (TEC) and Netcool/OMINbus event forwarding enablement, TEP ... Situation definition:



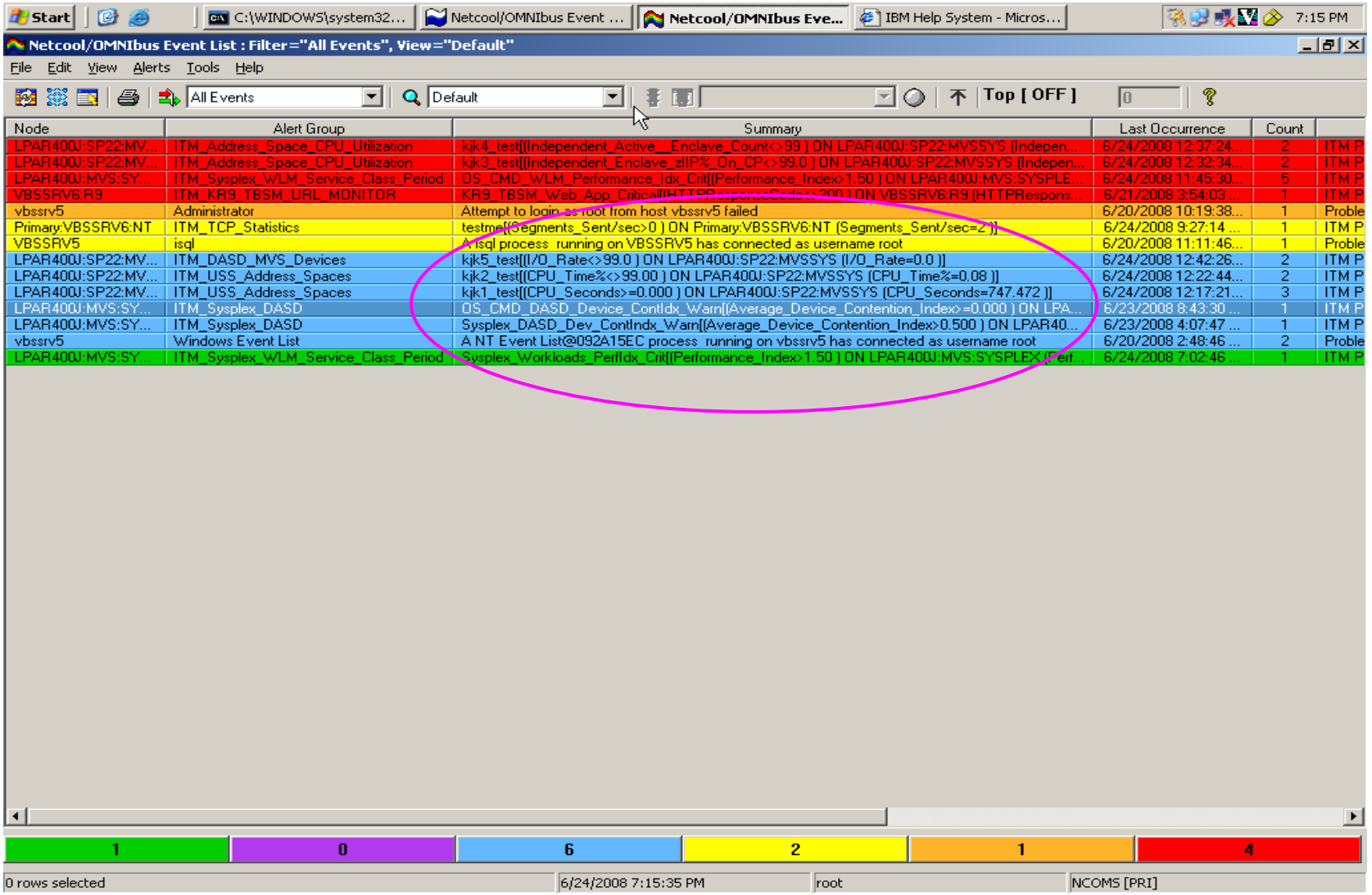
Tivoli Event Console (TEC) and Netcool/OMINbus event forwarding enablement, ... **TEPS Console (ITM events):**



Tivoli Event Console (TEC) and Netcool/OMINbus event forwarding enablement, ... **TEC Console (forwarded events):**



Tivoli Event Console (TEC) and Netcool/OMINbus event forwarding enablement, ... **Netcool Console (forwarded events):**



Summary

- What is new with OMEGAMON XE on z/OS 4.2.0
- z/OS Workloads - where is the pain today?
- Exploring one z/OS LPAR – Lets do it !
- Perplexed with your Sysplex?
- z - Processor's – looking at all types, shapes and sizes
- z/OS Storage – what's up with Virtual and Real?
- z/OS DASD, DASD and more DASD