



What's New with OMEGAMON z/OS Version 4.1 and How OMEGAMON can be used with z/OS Management Console

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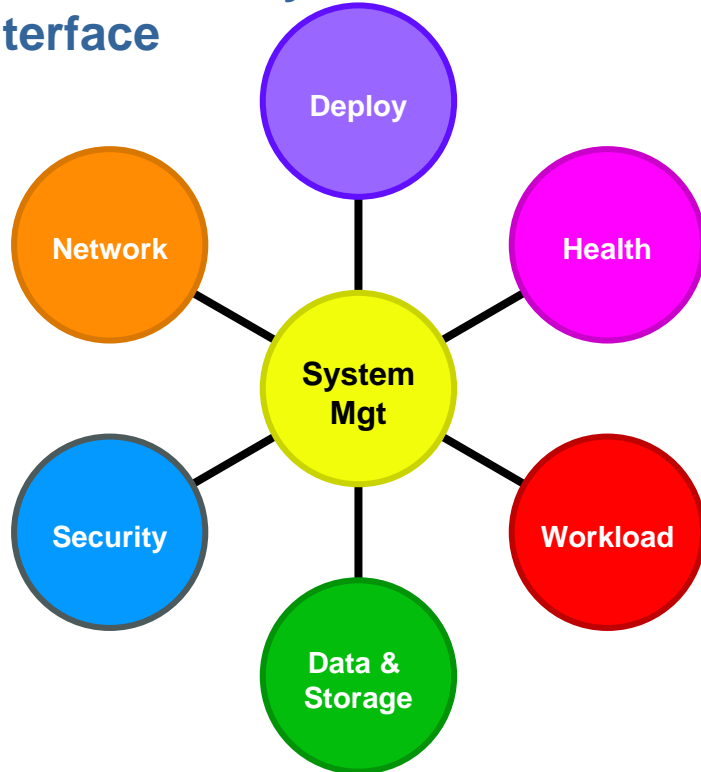
Agenda

- z/OS Systems Management
 - ▶ New Face on z/OS
- Tivoli OMEGAMON XE on z/OS 4.1.0
 - ▶ What is new in XE on z/OS 4.1.0
 - ▶ DWL - OMEGAMON z/OS
 - ▶ Problem Solving with XE
- zMC use with Tivoli OMEGAMON XE on z/OS 4.1.0
 - ▶ What is zMC?
 - ▶ DWL to XE
 - ▶ Using zMC and OMEGAMON XE together

z/OS Management Focus Areas

Goals

- Eliminate, or automate z/OS administrative and operational tasks
- Simplify the tasks that remain with a modern, easy to learn and useful interface



Assist customers with the following tasks:

- **Deployment: Plan, order, install, migrate, configure, update OS, SW products, HW devices:**
 - Migrate to new releases and deploy “on demand” features
- **Health and availability management:**
 - Detect, diagnose, recover from – and prevent - z/OS problems.
- **Data and storage management:**
 - Deploy new storage devices; migrate data
 - Establish storage management policies that meet business goals.
- **Workload management:**
 - Define workload management policies and track policy execution
 - Monitor and control system activity: business applications, batch jobs, UNIX® processes, and other forms of work
- **Network management:**
 - Monitor, configure and administer network connections, servers, and security. Focus: IP and SNA over IP
- **Security management:**
 - Configure z/OS security and help protect resources and information from unauthorized use



Tivoli OMEGAMON XE on z/OS 4.1.0

What is new with XE on z/OS 4.1.0

New Functions in OMEGAMON XE on z/OS Version 4.1.0

Translation into Chinese Simplified, Chinese Traditional, French, German, Italian, Japanese, Korean, Brazilian Portuguese, and Spanish

ISA Plug-In for product support

Integration of OMEGAMON XE for UNIX System Services

Integration of RMF (Coupling Facility Data)

アドレス・スペースの概要 - PDF104 - SYSADMIN

ファイル 編集 ビュー ヘルプ

ビュー: 物理

物理

- PLEX155:IP01:MVSSYS
 - アドレス・スペースの概要
 - チャンネル・パス・アクティ
 - 共通ストレージ
 - 暗号コプロセッサ
 - DASD MVS
 - DASD MVS デバイス
 - エンクレーブ情報
 - エンキューおよび予約の要
 - LPAR クラスター
 - オペレーター・アラート
 - ページ・データ・セット
 - 実ストレージ

物理

CPU 使用量

使用量が 0% より大きい場合

選択された実行状態

中央ストレージのフレーム

フレーム数が 0 より大きい場合

アドレス・スペース数

アドレス・スペース数	開始済みタスクの数	バッチ
49	46	

アドレス・スペースの CPU 使用率の...

ジョブ名	ステップ名	Proc ステップ	タイプ	Svc
MASTER			STC	SYS1
PCAUTH	PCAUTH		STC	SYS5
RASP	RASP		STC	SYS1
TRACE	TRACE		STC	SYS5
DUMPSRV	DUMPSRV	DUMPSRV	STC	SYS1
XCFAS	XCFAS	IEFPROC	STC	SYS1
GRS	GRS		STC	SYS1

ハブ時刻: 2007/01/24 水, 午後 04:16

サーバーは使用可能です

アドレス・スペースの概要 - PDF104 - SYSADMIN

XE Address Space overview in Japanese

- **New Functions in OMEGAMON XE on z/OS Version 4.1.0**
 - ▶ zAAP / zIIP Reporting
 - ▶ Additional Real Storage Reporting
 - ▶ Tape Mount Pending Time
 - ▶ Coupling Facility Structure Duplex reporting
 - ▶ Address Space I/O Rate
 - ▶ Dynamic Workspace Linking

OMEGAMON XE on z/OS Specialty Engine Support zIIP/zAAP – WLM Service Class Resources



Service Class	Period	Percent IFA	Percent IFA on CP	Percent zIIP	Percent zIIP on CP
WAS80%01		131.8	53.5	0.0	0.0
SYSSTC3	1 SysGoal	0	0	0	0
SYSSTC2	1 SysGoal	0	0	0	0

For System J80

Hub Time: Thu, 08/10/2006 09:37 AM Server Available WLM Service Class Resources - IBM-0792DD00843 - SYSADMIN Physical

OMEGAMON XE on z/OS Specialty Engine Support

zIIP/zAAP – Address Space Bottlenecks Summary

Address Space Bottlenecks Summary - IBM-0792DD00843 - SYSADMIN

View: Physical

Query Editor... (Ctrl+Q) on States

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
XCF Paths Data for Sysplex
XCF Systems Data for Sysplex
z/OS Management Console
J80
DB2
MVS Operating System
UTCPLEXJ8.J80.MVSSYS
Address Space Overview
Channel Path Activity

ASID	Job Name	Step Name	Proc Step	Using IFA	Using zIIP	IFA Wait	zIIP Wait
0X0343	WSP1S38	WSP1S38	BBOCTL	2.2	0.0	2.8	0.0
0X02BF	CICSCA8C	CICSCA8C	CICS64	1.7	0.0	0.0	0.0
0X01CB	WSP1A8	WSP1A8	BBOCTL	1.7	0.0	1.7	0.0
0X01E4	WSP1S48	WSP1S48	BBOCTL	1.1	0.0	1.1	0.0
0X033A	WSP1M	WSP1M	BBOCTL	1.1	0.0	1.7	0.0
0X01DC	WSP1S68	WSP1S68	BBOCTL	1.1	0.0	2.8	0.0
0X01CA	WSP1S18	WSP1S18	BBOCTL	1.1	0.0	1.1	0.0
0X01B1	CSQ8BRK	RETAILWG	*OMVSE	0.5	0.0	0.5	0.0
0X032E	WSP1S98S	WSP1S98S	BBOSR	0.5	0.0	0.5	0.0
0X02A3	WSP1SR34S	WSP1SR34S	BBOSR	0.5	0.0	0.0	0.0
0X0252	TPA8NOAI	EXCMO	IFP	0.5	0.0	0.0	0.0
0X0251	TPA8SLAI	EXCSL	IFP	0.0	0.0	0.0	0.0
0X0250	TPA8BAIT	EXCBA	C	0.0	0.0	0.0	0.0
0X0249	TPA8NOAI	EXCMO	IFP	0.0	0.0	0.0	0.0
0X0248	TPA8SLAI	EXCSL	IFP	0.0	0.0	0.0	0.0
0X0247	TPA8BAIT	EXCBA	C	0.0	0.0	0.0	0.0
0X0246	TPA8NOAI	EXCMO	IFP	0.0	0.0	0.0	0.0
0X0245	TPA8SLAI	EXCSL	IFP	0.0	0.0	0.0	0.0
0X0244	TPA8BAIT	EXCBA	C	0.0	0.0	0.0	0.0
0X0243	TPA8NOAI	EXCMO	IFP	0.0	0.0	0.0	0.0
0X0242	TPA8SLAI	EXCSL	IFP	0.0	0.0	0.0	0.0
0X0241	TPA8BAIT	EXCBA	C	0.0	0.0	0.0	0.0
0X0240	TPA8NOAI	EXCMO	IFP	0.0	0.0	0.0	0.0
0X0239	TPA8SLAI	EXCSL	IFP	0.0	0.0	0.0	0.0
0X0238	TPA8BAIT	EXCBA	C	0.0	0.0	0.0	0.0
0X0237	TPA8NOAI	EXCMO	IFP	0.0	0.0	0.0	0.0
0X0236	TPA8SLAI	EXCSL	IFP	0.0	0.0	0.0	0.0
0X0235	TPA8BAIT	EXCBA	C	0.0	0.0	0.0	0.0
0X0234	TPA8NOAI	EXCMO	IFP	0.0	0.0	0.0	0.0
0X0233	TPA8SLAI	EXCSL	IFP	0.0	0.0	0.0	0.0
0X0232	TPA8BAIT	EXCBA	C	0.0	0.0	0.0	0.0
0X0231	TPA8NOAI	EXCMO	IFP	0.0	0.0	0.0	0.0
0X0230	TPA8SLAI	EXCSL	IFP	0.0	0.0	0.0	0.0
0X0229	TPA8BAIT	EXCBA	C	0.0	0.0	0.0	0.0
0X0228	TPA8NOAI	EXCMO	IFP	0.0	0.0	0.0	0.0
0X0227	TPA8SLAI	EXCSL	IFP	0.0	0.0	0.0	0.0
0X0226	TPA8BAIT	EXCBA	C	0.0	0.0	0.0	0.0
0X0225	TPA8NOAI	EXCMO	IFP	0.0	0.0	0.0	0.0
0X0224	TPA8SLAI	EXCSL	IFP	0.0	0.0	0.0	0.0
0X0223	TPA8BAIT	EXCBA	C	0.0	0.0	0.0	0.0
0X0222	TPA8NOAI	EXCMO	IFP	0.0	0.0	0.0	0.0
0X0221	TPA8SLAI	EXCSL	IFP	0.0	0.0	0.0	0.0
0X0220	TPA8BAIT	EXCBA	C	0.0	0.0	0.0	0.0
0X0219	TPA8NOAI	EXCMO	IFP	0.0	0.0	0.0	0.0
0X0218	TPA8SLAI	EXCSL	IFP	0.0	0.0	0.0	0.0
0X0217	TPA8BAIT	EXCBA	C	0.0	0.0	0.0	0.0
0X0216	TPA8NOAI	EXCMO	IFP	0.0	0.0	0.0	0.0
0X0215	TPA8SLAI	EXCSL	IFP	0.0	0.0	0.0	0.0
0X0214	TPA8BAIT	EXCBA	C	0.0	0.0	0.0	0.0
0X0213	TPA8NOAI	EXCMO	IFP	0.0	0.0	0.0	0.0
0X0212	TPA8SLAI	EXCSL	IFP	0.0	0.0	0.0	0.0
0X0211	TPA8BAIT	EXCBA	C	0.0	0.0	0.0	0.0
0X0210	TPA8NOAI	EXCMO	IFP	0.0	0.0	0.0	0.0
0X0209	TPA8SLAI	EXCSL	IFP	0.0	0.0	0.0	0.0
0X0208	TPA8BAIT	EXCBA	C	0.0	0.0	0.0	0.0
0X0207	TPA8NOAI	EXCMO	IFP	0.0	0.0	0.0	0.0
0X0206	TPA8SLAI	EXCSL	IFP	0.0	0.0	0.0	0.0
0X0205	TPA8BAIT	EXCBA	C	0.0	0.0	0.0	0.0
0X0204	TPA8NOAI	EXCMO	IFP	0.0	0.0	0.0	0.0
0X0203	TPA8SLAI	EXCSL	IFP	0.0	0.0	0.0	0.0
0X0202	TPA8BAIT	EXCBA	C	0.0	0.0	0.0	0.0
0X0201	TPA8NOAI	EXCMO	IFP	0.0	0.0	0.0	0.0
0X0200	TPA8SLAI	EXCSL	IFP	0.0	0.0	0.0	0.0
0X0199	TPA8BAIT	EXCBA	C	0.0	0.0	0.0	0.0
0X0198	TPA8NOAI	EXCMO	IFP	0.0	0.0	0.0	0.0
0X0197	TPA8SLAI	EXCSL	IFP	0.0	0.0	0.0	0.0
0X0196	TPA8BAIT	EXCBA	C	0.0	0.0	0.0	0.0
0X0195	TPA8NOAI	EXCMO	IFP	0.0	0.0	0.0	0.0
0X0194	TPA8SLAI	EXCSL	IFP	0.0	0.0	0.0	0.0
0X0193	TPA8BAIT	EXCBA	C	0.0	0.0	0.0	0.0
0X0192	TPA8NOAI	EXCMO	IFP	0.0	0.0	0.0	0.0
0X0191	TPA8SLAI	EXCSL	IFP	0.0	0.0	0.0	0.0
0X0190	TPA8BAIT	EXCBA	C	0.0	0.0	0.0	0.0
0X0189	TPA8NOAI	EXCMO	IFP	0.0	0.0	0.0	0.0
0X0188	TPA8SLAI	EXCSL	IFP	0.0	0.0	0.0	0.0
0X0187	TPA8BAIT	EXCBA	C	0.0	0.0	0.0	0.0
0X0186	TPA8NOAI	EXCMO	IFP	0.0	0.0	0.0	0.0
0X0185	TPA8SLAI	EXCSL	IFP	0.0	0.0	0.0	0.0
0X0184	TPA8BAIT	EXCBA	C	0.0	0.0	0.0	0.0
0X0183	TPA8NOAI	EXCMO	IFP	0.0	0.0	0.0	0.0
0X0182	TPA8SLAI	EXCSL	IFP	0.0	0.0	0.0	0.0
0X0181	TPA8BAIT	EXCBA	C	0.0	0.0	0.0	0.0
0X0180	TPA8NOAI	EXCMO	IFP	0.0	0.0	0.0	0.0
0X0179	TPA8SLAI	EXCSL	IFP	0.0	0.0	0.0	0.0
0X0178	TPA8BAIT	EXCBA	C	0.0	0.0	0.0	0.0
0X0177	TPA8NOAI	EXCMO	IFP	0.0	0.0	0.0	0.0
0X0176	TPA8SLAI	EXCSL	IFP	0.0	0.0	0.0	0.0
0X0175	TPA8BAIT	EXCBA	C	0.0	0.0	0.0	0.0
0X0174	TPA8NOAI	EXCMO	IFP	0.0	0.0	0.0	0.0
0X0173	TPA8SLAI	EXCSL	IFP	0.0	0.0	0.0	0.0
0X0172	TPA8BAIT	EXCBA	C	0.0	0.0	0.0	0.0
0X0171	TPA8NOAI	EXCMO	IFP	0.0	0.0	0.0	0.0
0X0170	TPA8SLAI	EXCSL	IFP	0.0	0.0	0.0	0.0
0X0169	TPA8BAIT	EXCBA	C	0.0	0.0	0.0	0.0
0X0168	TPA8NOAI	EXCMO	IFP	0.0	0.0	0.0	0.0
0X0167	TPA8SLAI	EXCSL	IFP	0.0	0.0	0.0	0.0
0X0166	TPA8BAIT	EXCBA	C	0.0	0.0	0.0	0.0
0X0165	TPA8NOAI	EXCMO	IFP	0.0	0.0	0.0	0.0
0X0164	TPA8SLAI	EXCSL	IFP	0.0	0.0	0.0	0.0
0X0163	TPA8BAIT	EXCBA	C	0.0	0.0	0.0	0.0
0X0162	TPA8NOAI	EXCMO	IFP	0.0	0.0	0.0	0.0
0X0161	TPA8SLAI	EXCSL	IFP	0.0	0.0	0.0	0.0
0X0160	TPA8BAIT	EXCBA	C	0.0	0.0	0.0	0.0
0X0159	TPA8NOAI	EXCMO	IFP	0.0	0.0	0.0	0.0
0X0158	TPA8SLAI	EXCSL	IFP	0.0	0.0	0.0	0.0
0X0157	TPA8BAIT	EXCBA	C	0.0	0.0	0.0	0.0
0X0156	TPA8NOAI	EXCMO	IFP	0.0	0.0	0.0	0.0
0X0155	TPA8SLAI	EXCSL	IFP	0.0	0.0	0.0	0.0
0X0154	TPA8BAIT	EXCBA	C	0.0	0.0	0.0	0.0
0X0153	TPA8NOAI	EXCMO	IFP	0.0	0.0	0.0	0.0
0X0152	TPA8SLAI	EXCSL	IFP	0.0	0.0	0.0	0.0
0X0151	TPA8BAIT	EXCBA	C	0.0	0.0	0.0	0.0
0X0150	TPA8NOAI	EXCMO	IFP	0.0	0.0	0.0	0.0
0X0149	TPA8SLAI	EXCSL	IFP	0.0	0.0	0.0	0.0
0X0148	TPA8BAIT	EXCBA	C	0.0	0.0	0.0	0.0
0X0147	TPA8NOAI	EXCMO	IFP	0.0	0.0	0.0	0.0
0X0146	TPA8SLAI	EXCSL	IFP	0.0	0.0	0.0	0.0
0X0145	TPA8BAIT	EXCBA	C	0.0	0.0	0.0	0.0
0X0144	TPA8NOAI	EXCMO	IFP	0.0	0.0	0.0	0.0
0X0143	TPA8SLAI	EXCSL	IFP	0.0	0.0	0.0	0.0
0X0142	TPA8BAIT	EXCBA	C	0.0	0.0	0.0	0.0
0X0141	TPA8NOAI	EXCMO	IFP	0.0	0.0	0.0	0.0
0X0140	TPA8SLAI	EXCSL	IFP	0.0	0.0	0.0	0.0
0X0139	TPA8BAIT	EXCBA	C	0.0	0.0	0.0	0.0
0X0138	TPA8NOAI	EXCMO	IFP	0.0	0.0	0.0	0.0
0X0137	TPA8SLAI	EXCSL	IFP	0.0	0.0	0.0	0.0
0X0136	TPA8BAIT	EXCBA	C	0.0	0.0	0.0	0.0
0X0135	TPA8NOAI	EXCMO	IFP	0.0	0.0	0.0	0.0
0X0134	TPA8SLAI	EXCSL	IFP	0.0	0.0	0.0	0.0
0X0133	TPA8BAIT	EXCBA	C	0.0	0.0	0.0	0.0
0X0132	TPA8NOAI	EXCMO	IFP	0.0	0.0	0.0	0.0
0X0131	TPA8SLAI	EXCSL	IFP	0.0	0.0	0.0	0.0
0X0130	TPA8BAIT	EXCBA	C	0.0	0.0	0.0	0.0
0X0129	TPA8NOAI	EXCMO	IFP	0.0	0.0	0.0	0.0
0X0128	TPA8SLAI	EXCSL	IFP	0.0	0.0	0.0	0.0
0X0127	TPA8BAIT	EXCBA	C	0.0	0.0	0.0	0.0
0X0126	TPA8NOAI	EXCMO	IFP	0.0	0.0	0.0	0.0
0X0125	TPA8SLAI	EXCSL	IFP	0.0	0.0	0.0	0.0
0X0124	TPA8BAIT	EXCBA	C	0.0	0.0	0.0	0.0
0X0123	TPA8NOAI	EXCMO	IFP	0.0	0.0	0.0	0.0
0X0122	TPA8SLAI	EXCSL	IFP	0.0	0.0	0.0	0.0
0X0121	TPA8BAIT	EXCBA	C	0.0	0.0	0.0	0.0
0X0120	TPA8NOAI	EXCMO	IFP	0.0	0.0	0.0	0.0
0X0119	TPA8SLAI	EXCSL	IFP	0.0	0.0	0.0	0.0
0X0118	TPA8BAIT	EXCBA	C	0.0	0.0	0.0	0.0
0X0117	TPA8NOAI	EXCMO	IFP	0.0	0.0	0.0	0.0
0X0116	TPA8SLAI	EXCSL	IFP	0.0	0.0	0.0	0.0
0X0115	TPA8BAIT	EXCBA	C	0.0	0.0	0.0	0.0
0X0114	TPA8NOAI	EXCMO	IFP	0.0	0.0	0.0	0.0
0X0113	TPA8SLAI	EXCSL	IFP	0.0	0.0	0.0	0.0
0X0112	TPA8BAIT	EXCBA	C	0.0	0.0	0.0	0.0
0X0111	TPA8NOAI	EXCMO	IFP	0.0	0.0	0.0	0.0
0X0110	TPA8SLAI	EXCSL	IFP	0.0	0.0	0.0	0.0
0X0109	TPA8BAIT	EXCBA	C	0.0	0.0	0.0	0.0
0X0108	TPA8NOAI	EXCMO	IFP	0.0	0.0	0.0	0.0
0X0107	TPA8SLAI	EXCSL	IFP	0.0	0.0	0.0	0.0
0X0106	TPA8BAIT	EXCBA	C	0.0	0.0	0.0	0.0
0X0105	TPA8NOAI	EXCMO	IFP	0.0	0.0	0.0	0.0
0X0104	TPA8SLAI	EXCSL	IFP	0.0	0.0	0.0	0.0
0X0103	TPA8BAIT	EXCBA	C	0.0	0.0	0.0	0.0
0X0102	TPA8NOAI	EXCMO	IFP	0.0	0.0	0.0	0.0
0X0101	TPA8SLAI	EXCSL	IFP	0.0	0.0	0.0	0.0
0X0100	TPA8BAIT	EXCBA	C	0.0	0.0	0.0	0.0

Legend:

- Using IFA
- Using zIIP
- IFA Wait
- zIIP Wait
- Active I/O
- Queued I/O
- Enqueue Wait

Hub Time: Wed, 08/09/2006 09:50

Address Space Bottlenecks Summary - IBM-0792DD00843 - SYSADMIN

start

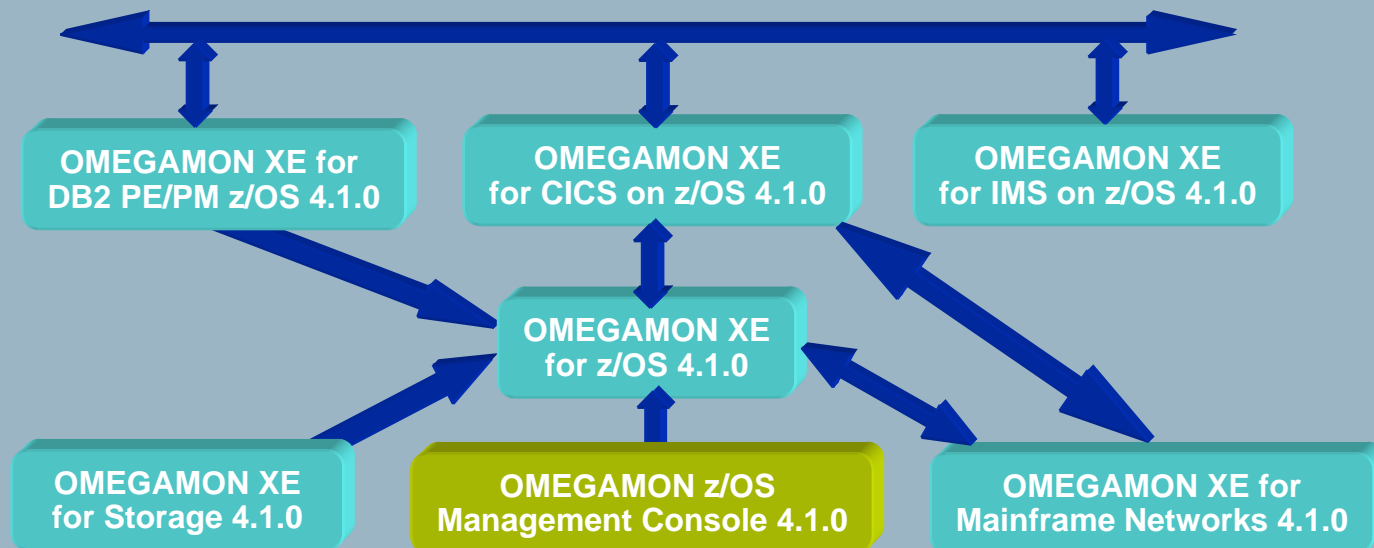
Address

Dynamic Workspace Linking Function with 4.1.0

Problem: How do I quickly find a potential problem that requires multiple monitoring products?

Scenario: Dynamically link in context from CICS transaction to the associated DB2 thread

Solution: Dynamic Workspace Linking
Product provided links & user customized





Tivoli OMEGAMON XE on z/OS 4.1.0

Problem Solving with XE

High CPU Scenario

Bottleneck and Inspect Features in
OM XE for zOS V4.1.0

High CPU Scenario - Overview

- The Navigation Tree Goes Red.....
- A Situation Has Identified a Looping Job.....
- Go Check It Out.....
- Address Space Overview Shows Bottleneck Data.....
- Display Links from Address Space Overview.....
- Address Space CPU Utilization Shows LOOPER.....
- Display Links from Address Space CPU Utilization.....
- Link to Inspect Data Shows Hot Spot Offsets.....
- Additional Inspect Data Shows CSECT Hot Spots.....
- You take action to cancel LOOPER.....

The Navigation Tree Goes Red

Enterprise Status - LTLFRARI - SYSADMIN

File Edit View Help

View: Physical

Enterprise Message Log

Status	Name	Display Item	Origin Node	Global Timestamp	Local Timestamp
Open	Potential_Looping_Address_Space	LOOPER	LPAR400J:SYS:MVSSYS	09/19/06 10:37:07	09/19/06 10:37:07
Open	Crypto_No_PCI_Coprocessors		LPAR400J:SYS:MVSSYS	09/19/06 08:57:38	09/19/06 08:57:38
Open	Sysplex_Workloads_PerfIdx_Crit		LPAR400J:MVS:SYSPLEX	09/19/06 08:57:31	09/19/06 08:57:31
Open	Sysplex_DASD_Dev_ContIdx_Warn		LPAR400J:MVS:SYSPLEX	09/19/06 08:57:31	09/19/06 08:57:31
Open	Crypto_Internal_Error		LPAR400J:SYS:MVSSYS	09/19/06 08:57:08	09/19/06 08:57:08

My Acknowledged Events

Severity	Status	Owner	Situation Name	Display Item	Source	Impact	Opened	Local Timestamp	Type
----------	--------	-------	----------------	--------------	--------	--------	--------	-----------------	------

Managed System Status

Status	Name	Product
*ONLINE	LPAR400J:SYS:MVSSYS	M5
*ONLINE	LPAR400J:MVS:SYSPLEX	M5
*ONLINE	HUB_LTLFRARI	EM
*ONLINE	DCUT6:CMS	EM

Open Situation Counts - Last 24 Hours

Situation Name	Count
test	1
high_cpu_low_io	2
Sysplex_Workloads_PerfIdx_Crit	4
Sysplex_DASD_Dev_ContIdx_Warn	4
Specific_Job_Runing	4
Potential_Looping_Address_Space	20
Crypto_No_PCI_Coprocessors	2
Crypto_Internal_Error	2

Hub Time: Tue, 09/19/2006 10:37 AM

Server Available

Enterprise Status - LTLFRARI - SYSADMIN

Start | > Re... | SYSG | Ent... | Ent... | Micr... | Docu... | 10:37 AM

A Situation Has Identified a Looping Job

Enterprise Status - LTLFRARI - SYSADMIN

File Edit View Help

View: Physical

Enterprise Message Log

Status	Name	Display Item	Origin Node	Global Timestamp	Local Timestamp
Open	Potential_Looping_Address_Space	LOOPER	LPAR400J:SYS:MVSSYS	09/19/06 10:37:07	09/19/06 10:37:07
Open	Crypto_No_PCI_Coprocessors		LPAR400J:SYS:MVSSYS	09/19/06 08:57:38	09/19/06 08:57:38
Open	Sysplex_Workloads_PerfIdx_Crit		LPAR400J:MVS:SYSPLEX	09/19/06 08:57:31	09/19/06 08:57:31
Open	Sysplex_DASD_Dev_ContIdx_Warn		LPAR400J:MVS:SYSPLEX	09/19/06 08:57:31	09/19/06 08:57:31
Open	Crypto_Internal_Error		LPAR400J:SYS:MVSSYS	09/19/06 08:57:08	09/19/06 08:57:08

My Acknowledged Events

Severity	Status	Owner	Situation Name	Display Item	Source	Impact	Opened	Local Timestamp	Type
CRITICAL	Open		Potential_Looping_Address_Space	LOOPER	LPAR400J:SYS:MVSSYS		09/19/06 10:37:07	09/19/06 10:37:07	LOOPER

Managed System Status

Status	Name	Product
*ONLINE	LPAR400J:SYS:MVSSYS	M5
*ONLINE	LPAR400J:MVS:SYSPLEX	M5
*ONLINE	HUB_LTLFRARI	EM
*ONLINE	DCUT6:CMS	EM

KFWMTM1011 Select workspace link button to view situation event results.

Situation Name	Count
test	1
high_cpu_low_io	2
Sysplex_Workloads_PerfIdx_Crit	3
Sysplex_DASD_Dev_ContIdx_Warn	3
Specific_Job_Runing	4
Potential_Looping_Address_Space	19
Crypto_No_PCI_Coprocessors	2
Crypto_Internal_Error	2

Hub Time: Tue, 09/19/2006 10:38 AM

Server Available

Enterprise Status - LTLFRARI - SYSADMIN

Start | > Re... | SYSG | Ent... | Ent... | Micr... | Docu... | 10:38 AM

Go Check It Out

The screenshot displays the IBM Tivoli Monitoring console for a system named 'Potential_Looping_Address_Space - LOOPER - LTLFRARI - SYSADMIN'. The interface is divided into several panes:

- Left Pane:** A tree view showing the system hierarchy. The selected node is 'Potential_Looping_Address_Space' under 'MVS Operating System'.
- Initial Situation Values Table:**

CPU Percent	IO per Second	Job Name	Managed System	TCB Percent	SRB Percent	Step Name	Proc Step	SvcClass	SvcClass Period
84.7	0.0	LOOPER	LPAR400J:SYS:MVSSYS	84.7	0.0			BATCH	2
- Current Situation Values Table:**

CPU Percent	IO per Second	Job Name	Managed System	TCB Percent	SRB Percent	Step Name	Proc Step	SvcClass	SvcClass Period
83.4	0.0	LOOPER	LPAR400J:SYS:MVSSYS	83.4	0.0			BATCH	2
- Command View:** A 'Take Action' dialog box with fields for 'Action Name', 'Command', and 'Destination Systems'. A 'Run' button is visible at the bottom.
- Right Pane:** A large white area with the text **Don't Panic !!** in a bold, black serif font.
- Status Bar:** Shows 'Hub Time: Tue, 09/19/2006 10:38 AM', 'Server Available', and the system name.
- Taskbar:** Displays the Windows Start button, various application icons, and the system clock showing 10:39 AM on 09/19/2006.

Address Space Overview Shows Bottleneck Data

Address Space Overview - LTLFRARI - SYSADMIN

File Edit View Help

View: Physical

- Service Classes Data for Sysplex
- Service Definition Data for Sysplex
- Shared DASD Groups Data For Sysplex
- XCF Groups Data for Sysplex
- XCF Paths Data for Sysplex
- XCF Systems Data for Sysplex
- SYS
 - MVS Operating System
 - LPAR400J:SYS:MVSSYS
 - Address Space Overview
 - Potential_Looping_Addre
 - Channel Path Activity
 - Common Storage

CPU Usage Page: 1 of 3

Address Space	Usage (%)
WILM	~2
JES2	~2
DATALD0	~2
TCPR0	~2
TKUPR72	~20
LOOPER	75.6
NET25	~2

Where usage greater than 0%

Selected Execution States Page: 1 of 3

Greater than 5%

Address Space Counts

Address Space Count	Started Task Count	Batch Job Count	TSO Count
264	208	14	

Address Space CPU Utilization Summary Page: 1 of 3

Job Name	Step Name	Proc Step	Type	State
MASTER			STC	S
PCAUTH	PCAUTH		STC	S
RASP	RASP		STC	S
TRACE	TRACE		STC	S
DUMPSRV	DUMPSRV	DUMPSRV	STC	S
XCFAS	XCFAS	IEFPROC	STC	S
GRS	GRS		STC	S

Central Storage Frame Count Page: 1 of 4

Where frame counts are greater than 0

Fixed Storage Page: 1 of 4

0.0 (*MASTER*)

Hub Time: Tue, 09/19/2006 10:40 AM Server Available Address Space Overview - LTLFRARI - SYSADMIN

Start | > Re... | SYS | Ad... | Ent... | Micr... | Docu... | 10:40 AM

Display Links from Address Space Overview

Address Space Overview - LTLFRARI - SYSADMIN

File Edit View Help

View: Physical

- Shared DASD Groups Data For Sysplex
- XCF Groups Data for Sysplex
- XCF Paths Data for Sysplex
- XCF Systems Data for Sysplex
- SYS
 - MVS Operating System
 - LPAR400J.SYS.MVSSYS
 - Address Space Overview**
 - Potential_Looping_Addre
 - Channel Path Activity
 - Common Storage
 - Cryptographic Coprocessors
 - DASD MVS

Physical

CPU Usage Page: 1 of 3

Where usage greater than 0%

Address Space	TCB Percent	SRB Percent	IFA Percent	IFA on CP Percent	zIIP Percent	zIIP on CP Percent
XCFAS	0	0	0	0	0	0
GRS	0	0	0	0	0	0
WLM	0	0	0	0	0	0
ATRRS	0	0	0	0	0	0
CATALD0	0	0	0	0	0	0
LOOPER	82.1	0	0	0	0	0
NET25	0	0	0	0	0	0

Selected Execution States Page: 1 of 3

Greater than 5%

Address Space	Using CPU	CPU Wait	Active I/O	Queued I/O	Enqueue Wait	Using IFA	IFA Wait	Using zIIP	zIIP Wait
MASTER	0	0	0	0	0	0	0	0	0
XCFAS	0	0	0	0	0	0	0	0	0
KONSOSST	0	0	0	0	0	0	0	0	0
LOOPER	75	10	0	0	0	0	0	0	0

Address Space Counts

Address Space	Count	Started Task Count	Batch Job Count	TSO Count
PCAUTH	1	1	0	0
RASP	1	1	0	0
TRACE	1	1	0	0
DUMPSRV	1	1	0	0
XCFAS	1	1	0	0
GRS	1	1	0	0

Central Storage Frame Count Page: 1 of 4

Where frame counts are greater than 0

Address Space	Central Storage Frame Count	Fixed Storage Frame Count
\$AFDP66	0	0
\$RMFG	0	0
AFD0006	0	0
ASCHINT	0	0
BMEWIK	0	0
CIGSL282	0	0
CICSR99L	0	0
CP02090L	0	0
CTD63000	0	0
D2DB000	0	0
D2DB111	0	0
D6M5001	0	0
D81B1RLM	0	0

Fixed Storage Page: 1 of 4

Address Space	Low Fixed (Mb)	Extended Fixed (Mb)	Large Fixed (Mb)
\$AFDP66	0	0	0
\$SMTF6	0	0	0
AFD0031L	0	0	0
ASCHINT	0	0	0
DPXDINIT	0	0	0
CICSR24L	0	0	0
SMIKS2	0	0	0
CTD63A00	0	0	0
D2DB000	0	0	0
D2DB148	0	0	0
D71D01ST	0	0	0
D81D01ST	0	0	0

Hub Time: Tue, 09/19/2006 11:50 AM
Server Available
Address Space Overview - LTLFRARI - SYSADMIN

Start | > Re: Fw: ... | SYSYG | Address... | Enterpris... | Document... | 11:50 AM

Address Space CPU Utilization Shows LOOPER

Address Space CPU Utilization - LTLFRARI - SYSADMIN

View: Physical

CPU Usage

Where CPU Percent is greater than 0

Job Name	Step Name	Proc Step	SvcClass	SvcClass Period	ASID	JESJOBID	CPU Percent	zIIP Percent	zIIP on CP Percent	Independent Enclave CPU%
LOOPER			BATCH	2	0X0034	JOB11885	85.2	85.2	0.0	0.0
WLM	WLM	IEFPROC	SYSTEM	1	0X000B		2.1	2.1	0.0	0.0
NET25	NET	NET25	SYSSTC	1	0X0085	STC08333	0.8	0.4	0.4	0.0
JES2	JES2	IEFPROC	SYSSTC	1	0X001D		0.4	0.4	0.0	0.0
XCFAS	XCFAS	IEFPROC	SYSTEM	1	0X0006		0.4	0.4	0.0	0.0
KGMSDSST	KGMSDSST	CMS	STC	2	0X0023	STC08384	0.4	0.4	0.0	0.0
\$SUPGATG	SUPGATEG	IEFPROC	STCPROD	1	0X0096	STC08368	0.0	0.0	0.0	0.0
APPC	APPC	APPC	SYSSTC	1	0X0095		0.0	0.0	0.0	0.0
\$NETVSSG	\$NETVSSG	NETVIEW	STCPROD	1	0X0094	STC08367	0.0	0.0	0.0	0.0
\$NETVG	\$NETVG	NETVG	STCPROD	1	0X0093	STC08366	0.0	0.0	0.0	0.0
XDCCDF	XDCCDF	XDCCDF	STCPROD	1	0X0092	STC08365	0.0	0.0	0.0	0.0
...

For System SYS

Hub Time: Tue, 09/19/2006 11:51 AM Server Available Address Space CPU Utilization - LTLFRARI - SYSADMIN

Display Links from Address Space CPU Utilization

Address Space CPU Utilization - LTLFRARI - SYSADMIN

File Edit View Help

View: Physical

CPU Usage

Page: 1 of 3

Where CPU Percent is greater than 0

Legend:

- CPU Percent
- TCB Percent
- SRB Percent
- IFA Percent
- IFA on CP Percent
- zIIP Percent
- zIIP on CP Percent

Owned Enclaves

Service Class Period Information

Address Space CPU Usage Details

Address Space CPU Usage Enclaves

Inspect Address Space Cpu Use

Inspect with 5000 samples at 2ms interval

Link Wizard...

Link Anchor...

SvcClass Period	ASID	JESJOBID	CPU Percent	TCB Percent	SRB Percent	IFA Percent	IFA on CP Percent	zIIP Percent	zIIP on CP Percent	Independent Enclave CPU%
2	0X002E	JOB11929	80.8	80.8	0.0	0.0	0.0	0.0	0.0	0.0
1	0X000B		2.1	2.1	0.0	0.0	0.0	0.0	0.0	0.0
1	0X0006		0.8	0.4	0.4	0.0	0.0	0.0	0.0	0.0
1	0X0085	STC08333	0.8	0.4	0.4	0.0	0.0	0.0	0.0	0.0
1	0X000A		0.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0
1	0X0096	STC08368	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1	0X0095		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1	0X0094	STC08367	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

For System SYS

Hub Time: Tue, 09/19/2006 12:25 PM

Server Available

Address Space CPU Utilization - LTLFRARI - SYSADMIN

Start

z/OS Defects - 9/19/06 - ...

SYSG

Address Space CPU U...

Enterprise Status - LTLF...

Looper Screen Shots 2.do...

12:25 PM

Link to Inspect Data Shows Hot Spot Offsets

The screenshot displays the 'Inspect Address Space CPU Use - LTLFRARI - SYSADMIN' application. The left pane shows a tree view with 'Address Space Overview' selected. The 'Sampling Statistics' window shows a table with one row: Interval 5, Samples Taken 1000, Samples Used 1000. The 'Agent Messages' window shows a message: 'KM3IN008I GRANULARITY SET TO 0X00000100'. The main table, titled 'CPU Usage for ASID: 002E JOB: LOOPER', contains the following data:

Initial Program	TCB Address	TCB CPU % of job	TCB Ended	Load Module Name	Load Module Address	Load Module ASID Hex	Load Module ASID Decimal	Load Module ASID Jobname	Load Module CPU % of job	Load Module CPU % of TCB	CSECT Name	CSECT Offset in load module
EXEC	0X007DE648	100.0	-	IRXINIT	0X04BEB000	-	-	-	100.0	100.0	IXXRIN	0X000068B0
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	IXXRVA	0X000094F8
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-

At the bottom of the application window, the text 'For System' is displayed. The taskbar shows the system time as 12:25 PM on Tue, 09/19/2006, and several open applications including 'z/OS Defects - 9/19/06 - ...', 'SYSG', 'Inspect Address Spa...', 'Enterprise Status - LTLF...', and 'Looper Screen Shots 2.do...'.

Additional Inspect Data Shows CSECT Hot Spots

Inspect Address Space CPU Use - LTLFRARI - SYSADMIN

File Edit View Help

View: Physical

Sampling Statistics

Interval	Samples Taken	Samples Used
5	1000	1000

Agent Messages

Message

KM3IN008I GRANULARITY SET TO 0X00000100

CPU Usage for ASID: 002E JOB: LOOPER

le	Load Module ASID Decimal	Load Module ASID Jobname	Load Module CPU % of job	Load Module CPU % of TCB	CSECT Name	CSECT Offset in load module	CSECT Address	CSECT CPU % of load module	CSECT CPU % of TCB	CSECT CPU % of job	Offset in CSECT	CPU % of CSECT
-	-	-	100.0	100.0	IXXRIN	0X000068B0	0X04BF18B0	47.0	47.0	47.0	0X00000400	31.0
-	-	-	-	-	-	-	-	-	-	-	0X00000200	17.3
-	-	-	-	-	-	-	-	-	-	-	0X00000300	15.1
-	-	-	-	-	-	-	-	-	-	-	0X00000F00	14.1
-	-	-	-	-	-	-	-	-	-	-	0X00001100	13.7
-	-	-	-	-	-	-	-	-	-	-	0X00001000	4.5
-	-	-	-	-	-	-	-	-	-	-	0X00001400	2.2
-	-	-	-	-	-	-	-	-	-	-	0X00001500	1.3
-	-	-	-	-	-	-	-	-	-	-	0X00001200	0.3
-	-	-	-	-	IXXRVA	0X000094F8	0X04BF44F8	23.1	23.1	23.1	0X00000500	37.3
-	-	-	-	-	-	-	-	-	-	-	0X00000000	33.4
-	-	-	-	-	-	-	-	-	-	-	0X00000A00	12.4

For System

Hub Time: Tue, 09/19/2006 12:27 PM Server Available Inspect Address Space CPU Use - LTLFRARI - SYSADMIN

Start

z/OS Defects - 9/19/06 - ... SYSYG Inspect Address Spa... Enterprise Status - LTLF... Looper Screen Shots 2.do...

12:27 PM

You take action to cancel LOOPER

The screenshot shows the IBM Tivoli Monitoring console interface. A 'Take Action' dialog box is open, allowing the user to perform an action on a selected job. The dialog has the following fields:

- Action Name:** <Select Action>
- Command:** <Select Action> (with 'Cancel Job' selected in the dropdown)
- Arguments:** Arguments...
- Destination Systems:** (Empty list)

The background window displays system metrics and job details. The 'Initial Situation Values' table is as follows:

CPU Percent	IO per Second	Managed System	Job Name	TCB Percent	SRB Percent	Step Name	Proc Step	SvcClass	SvcClass Period
76.9	-76.5	LPAR400J:SYS:MVSYS	SGLAZ002	76.9	0.0	GO		BATCH	2

Below this, another table shows job details:

Job Name	TCB Percent	SRB Percent	Step Name	Proc Step	SvcClass	SvcClass Period
SGLAZ002	68.2	0.0	GO		BATCH	
LOOPER	65.2	0.0			BATCH	

The Windows taskbar at the bottom shows the time as 10:55 AM on Tue, 08/08/2006. Open applications include 'Potential_Looping_A...', 'Paint', and 'Link Expression Editor'.



IBM OMEGAMON z/OS Management Console (zMC) Version 4.1.0

What is zMC?

IBM OMEGAMON® z/OS Management Console

- Available at no charge for z/OS 1.4 and above
- Status of z/OS sysplexes and systems displayed using Tivoli® Enterprise Portal
- Integrated Health Checker reports
- Powerful features:
 - ▶ Event notification
 - ▶ Drill-down to problem details and expert advice
- Easy upgrade to comprehensive Tivoli Monitoring Services products
- Foundation for the future



Learn more at: <http://www.ibm.com/servers/eserver/zseries/zos/zmc/>

Managing Situations Using the zMC

Sequence of events:

- **z/OS agents monitor for situations**
 - 14 pre-defined situations shipped
 - Customers can create more



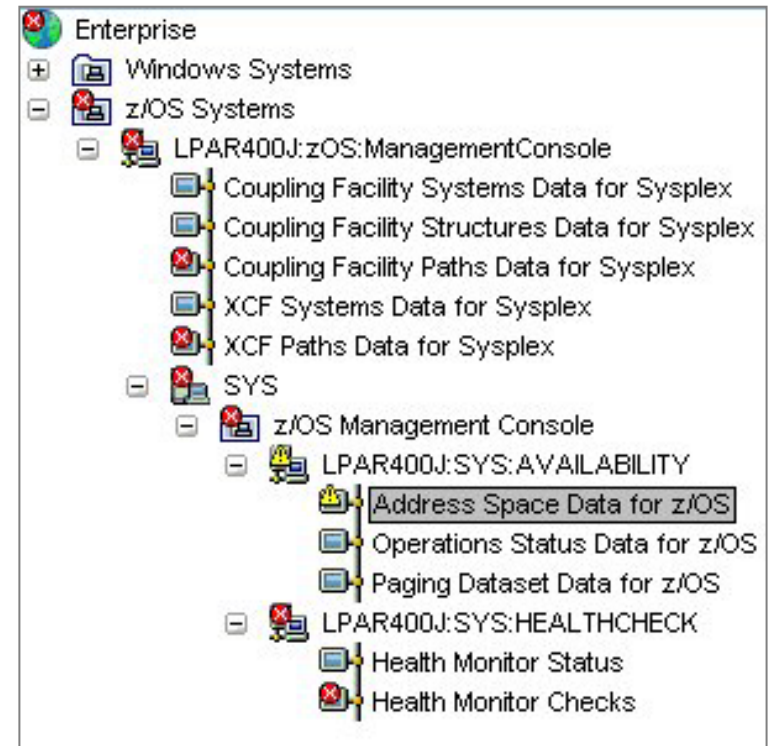
- **If situation triggers, alert is raised**

Alert indicators:

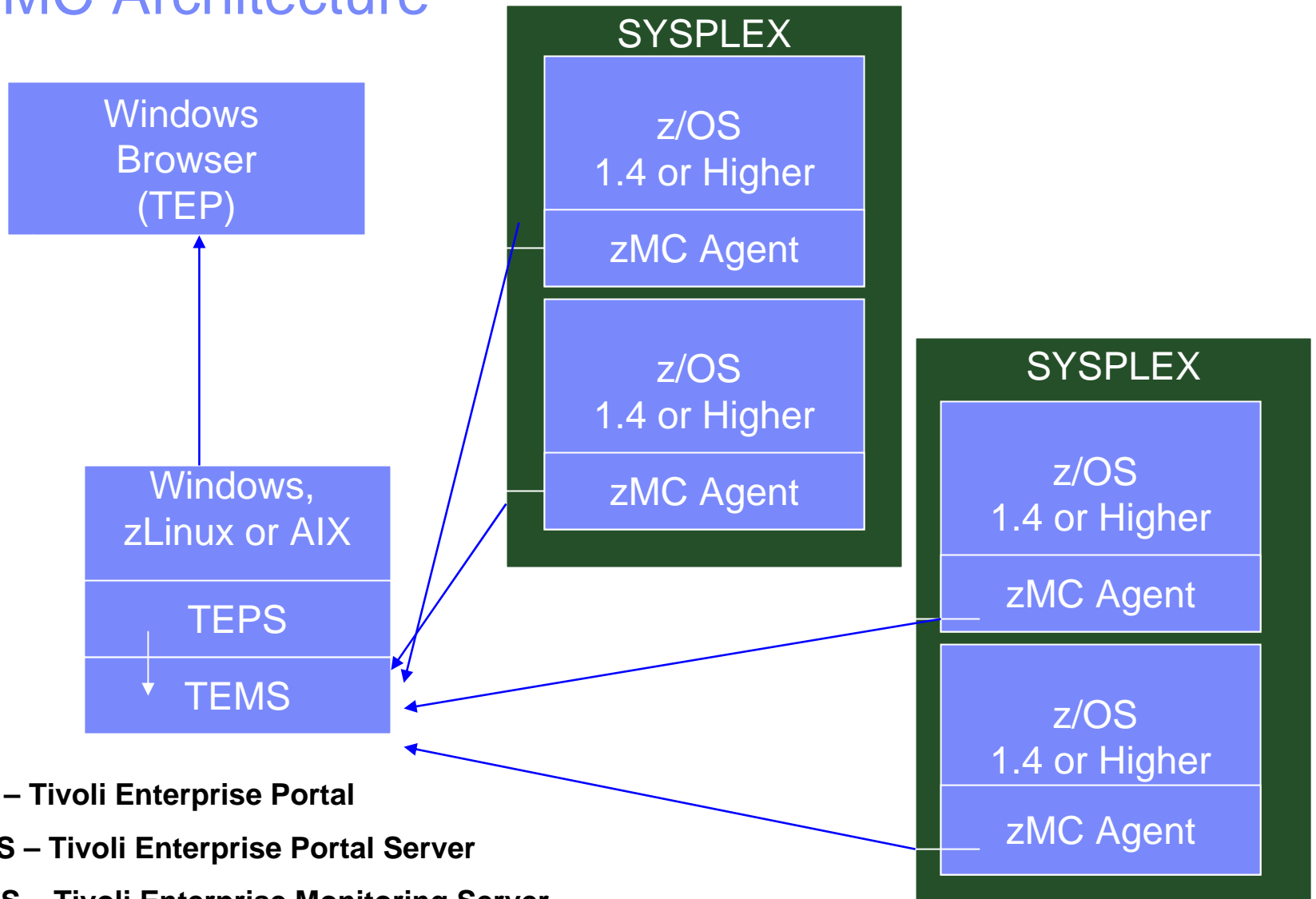
Critical, Warning, or Informational.

- **User opens Event Workspace**
 - Gets more details about situation
 - Reads expert advice (if provided)
 - Takes action (optionally)

Alerts appear in TEP Navigator:



zMC Architecture



TEP – Tivoli Enterprise Portal

TEPS – Tivoli Enterprise Portal Server

TEMS – Tivoli Enterprise Monitoring Server

zMC 4.1.0 – new release

GA complete in January 2007:

More Sysplex Level – CF details, duplex, policy

More Availability Information – USS Processes/Users

Lpar Cluster information

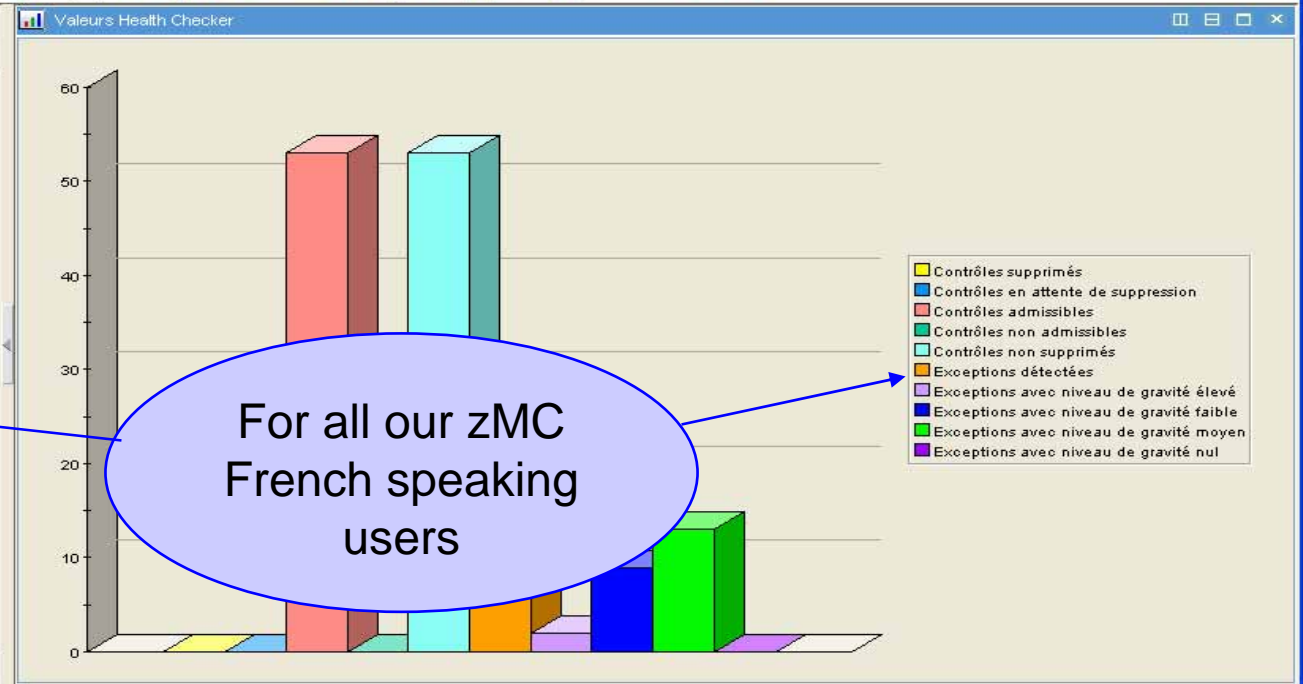
Dynamic Workspace Linking – OMEGAMON XE for z/OS

Translation: Chinese Simplified, Chinese Traditional, French, German, Italian, Japanese, Korean, Brazilian Portuguese, and Spanish

ISA Plug-In for product support

View: Physical

- Enterprise
 - z/OS Systems
 - LPAR400J:zOS:ManagementConsole
 - Règles des unités de couplage du sysplex
 - Données sur les systèmes d'unité de couplage du sysplex
 - Données sur les structures d'unité de couplage du sysplex
 - Données sur les chemins d'unité de couplage du sysplex
 - Données sur les systèmes XCF du sysplex
 - Données sur les chemins XCF du sysplex
 - SP22
 - z/OS Management Console
 - LPAR400J:SP22:AVAILABILITY
 - Données sur l'espace adresse pour z/OS
 - Données sur le statut des opérations pour z/OS
 - Données sur les fichiers de pagination pour z/O
 - Données sur les clusters de partitions logiques
 - Espaces adresse et processus USS
 - LPAR400J:SP22:HEALTHCHECK
 - Statut du moniteur d'état
 - Contrôles du moniteur d'état

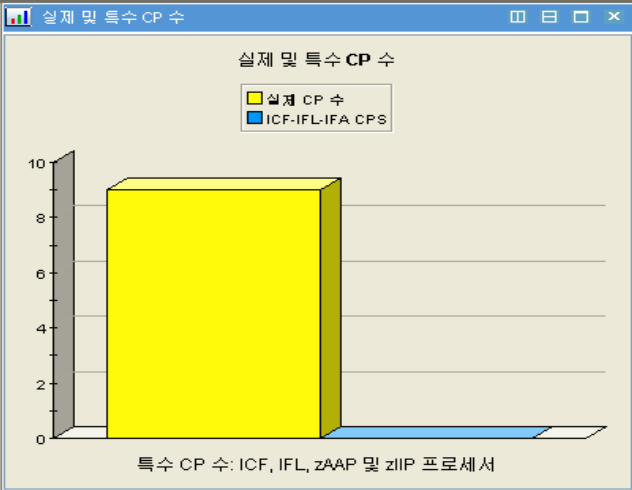
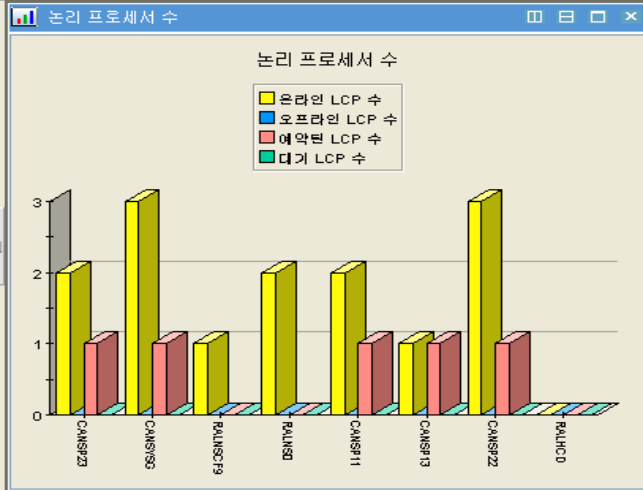


Statut du composant Health Checker

ID SMF	Nom du système	Nom de la procédure	Identificateur de tâche	Statut	Identificateur de version	Exceptions détectées	Exceptions avec niveau de gravité nul	Exceptions avec niveau de gravité faible	Exceptions avec niveau de gravité moyen	Exceptions avec niveau de gravité élevé	Contrôles non supprimés	Contrôles supprimés	Contrôles en attente de suppression	Contrôles admissibles	Con adr
SP22	SP22	HZSPR...	HZSPROC	Actif	z/OS 01.05.00	24	0	9	13	2	53	0	0	53	

View: Physical

- Enterprise
 - z/OS Systems
 - LPAR400J.z/OS:ManagementConsole
 - Sysplex용 결합 기능 policy 데이터
 - Sysplex용 결합 기능 시스템 데이터
 - Sysplex용 결합 기능 구조 데이터
 - Sysplex용 결합 기능 경로 데이터
 - Sysplex용 XCF 시스템 데이터
 - Sysplex용 XCF 경로 데이터
 - SP22
 - z/OS Management Console
 - LPAR400J.SP22:AVAILABILITY
 - z/OS용 주소 공간 데이터
 - z/OS용 조작 상태 데이터
 - z/OS용 페이지징 데이터 세트 데이터
 - z/OS용 LPAR 클러스터 데이터
 - USS 주소 공간 및 프로세스
 - LPAR400J.SP22:HEALTHCHECK



LPAR 클러스터 정보

클러스터 이름	LPAR 이름	온라인 LCP 수	오프라인 LCP 수	예약된 LCP 수	대기 LCP 수	CP 상태	LPAR 상태	CPC 모델 번호	CPC 일련 번호	실제 CP 수	특수 CP 수	저장영역 (MB)	시간 소인
LPAR400J.0960.2064	CANSP23	2	0	1	0	S...	활성	2064-1...	050960	9	0	256	01/24/07 16:15:47
LPAR400J.0960.2064	CANSYSG	3	0	1	0	S...	활성	2064-1...	050960	9	0	1792	01/24/07 1
N/A	RALNSCF9	1	0	0	0	D...	활성	2064-1...	050960	9	0	1024	01/24/07 1
N/A	RALNS0	2	0	0	0	S...	활성	2064-1...	050960	9	0	2048	01/24/07 1
LPAR400J.0960.2064	CANSP11	2	0	1	0	S...	활성	2064-1...	050960	9	0	1024	01/24/07 16:15:47
LPAR400J.0960.2064	CANSP13	1	0	1	0	S...	활성	2064-1...	050960	9	0	768	01/24/07 16:15:47
LPAR400J.0960.2064	CANSP22	3	0	1	0	S...	활성	2064-1...	050960	9	0	1344	01/24/07 16:15:47
N/A	RALHCD	0	0	0	0	D...	비활성	2064-1...	050960	9	0	0	01/24/07 16:15:47
N/A	PHYSICAL	9	0	0	0	S...	비활성	2064-1...	050960	9	0	0	01/24/07 16:15:47

OMEGAMON z/OS Management Console 모니터링 에이전트가 데이터를 검색한 날짜 및 시간입니다.

If Korean is your zMC language of choice !!

z/OS Health Checks in TEP with zMC 4.1.0

zMC provides TEP based Health Checker

- Health Checker provides z/OS elements and products to check on configuration values and report what may be a deviation from best practices
- Displays health check statistics on the TEP
- Highlights check status
- Health Checker in SDSF is more text based (web download before z/OS 1.7)

The screenshot shows the 'All Health Checks' window in zMC. It features a tree view on the left, a bar chart titled 'Counts of Check States' on the right, and a table of health checks at the bottom. The bar chart shows a high count of Normal (green) checks, with smaller counts for High (red), Medium (yellow), and Low (pink) counts. The table lists various checks with their status highlighted in red for 'Exception_High' or pink for 'Exception_Low'.

	Sysplex Name	MVSID	Check Owner	Check Name	Check Status	Enabled	Active	Global	More Than One Msg	Exit Routine
	LPAR400J	SYS	IBMXCF	CDS_Dataset_Separation	Exception_High	Yes	Yes	No	Yes	IBMSECT
	LPAR400J	SYS	IBMUSS	USS_FILESYS_CONFIG	Exception_High	Yes	Yes	No	Yes	IBMSECT
	LPAR400J	SYS	IBMRACF	RACF_SENSITIVE_RESOURCES	Exception_High	Yes	Yes	No	Yes	IBMSECT
	LPAR400J	SYS	IBMUSS	USS_AUTOMOUNT_DELAY	Exception_Low	Yes	Yes	No	Yes	IBMSECT
	LPAR400J	SYS	IBMUSS	USS_MAXSOCKETS_MAXFILEPROC	Exception_Low	Yes	Yes	No	Yes	IBMSECT
	LPAR400J	SYS	IBMRSM	RSM_REAL	Exception_Low	Yes	Yes	No	Yes	IBMSECT
	LPAR400J	SYS	IBMCNZ	CNZ_Syscons_Routcode	Exception_Low	Yes	Yes	No	Yes	IBMSECT
	LPAR400J	SYS	IBMCNZ	CNZ_Console_Routcode_11	Exception_Low	Yes	Yes	No	Yes	IBMSECT
	LPAR400J	SYS	IBMCNZ	CNZ_AMRF_Eventual_Action_Msgs	Exception_Low	Yes	Yes	No	Yes	IBMSECT
	LPAR400J	SYS	IBMCNZ	CNZ_Console_Mscope_And_Routcode	Env_N/A	Yes	Yes	No	Yes	IBMSECT
	LPAR400J	SYS	IBMCNZ	CNZ_EMCS_Hardcopy_Mscope	Env_N/A	Yes	Yes	No	Yes	IBMSECT
	LPAR400J	SYS	IBMGRS	GRS_CONVERT_RESERVES	Env_N/A	Yes	Yes	No	Yes	IBMSECT
	LPAR400J	SYS	IBMCNZ	CNZ_Syscons_Mscope	Env_N/A	Yes	Yes	No	Yes	IBMSECT

This feature is unique to the IBM OMEGAMON z/OS Management Console (zMC)



IBM OMEGAMON z/OS Management Console Version 4.1.0

New LPAR Availability Information

Enterprise Status - IBM-PSQEU4XHHBD - JWINT

File Edit View Help

View: Physical

Enterprise

- z/OS Systems
 - LPAR400J:MVS:SYSPLX
 - Coupling Facility Policy Data for Sysplex
 - Coupling Facility Structures Data for Sysplex
 - Coupling Facility Systems Data for Sysplex
 - 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

Physical

Situation Event Console

Total Events: 27 | Item Filter: Enterprise

Severity	Status	Owner	Situation Name	Display Item	Source
Critical	Open		KHL_High_Severity_Check		LPAR400J:SYSL:HEALTHCHECK
Critical	Open		KHL_High_Severity_Check		LPAR400J:SP13:HEALTHCHECK
Critical	Open		Crypto_Service_Unavailable		LPAR400J:SP23:MVSSYS
Critical	Open		Crypto_Internal_Error		LPAR400J:SP23:MVSSYS
Critical	Open		KHL_High_Severity_Check		LPAR400J:SP23:HEALTHCHECK
Critical	Open		KHL_High_Severity_Check		LPAR400J:SP12:HEALTHCHECK
Critical	Open		KHL_High_Severity_Check		LPAR400J:SP22:HEALTHCHECK
Critical	Open		Crypto_Service_Unavailable		LPAR400J:SP11:MVSSYS
Critical	Open		Crypto_Internal_Error		LPAR400J:SP11:MVSSYS
Critical	Open		KHL_High_Severity_Check		LPAR400J:SP11:HEALTHCHECK
Critical	Open		KHL_Paging_Dataset_Utilization		LPAR400J:SYS:AVAILABILITY
Critical	Open		KHL_High_Severity_Check		LPAR400J:SYS:HEALTHCHECK
Critical	Open		KHL_XCF_Paths_Problem	2	LPAR400J:ZOS:ManagementCons

Open Situation Counts - Last 24 Hours

KHL_Paging_Dataset_Utilization: ~20

KHL_GTF_Active: ~10

My Acknowledged Events

Severity	Status	Owner	Situation Name	Display Item	Source	Impact	Opened	Local Timestamp	Type
Critical	Open		KHL_High_Severity_Check		LPAR400J:SYSL:HEALTHCHECK				
Critical	Open		KHL_High_Severity_Check		LPAR400J:SP13:HEALTHCHECK				
Critical	Open		Crypto_Service_Unavailable		LPAR400J:SP23:MVSSYS				
Critical	Open		Crypto_Internal_Error		LPAR400J:SP23:MVSSYS				
Critical	Open		KHL_High_Severity_Check		LPAR400J:SP23:HEALTHCHECK				
Critical	Open		KHL_High_Severity_Check		LPAR400J:SP12:HEALTHCHECK				
Critical	Open		KHL_High_Severity_Check		LPAR400J:SP22:HEALTHCHECK				
Critical	Open		Crypto_Service_Unavailable		LPAR400J:SP11:MVSSYS				
Critical	Open		Crypto_Internal_Error		LPAR400J:SP11:MVSSYS				
Critical	Open		KHL_High_Severity_Check		LPAR400J:SP11:HEALTHCHECK				
Critical	Open		KHL_Paging_Dataset_Utilization		LPAR400J:SYS:AVAILABILITY				
Critical	Open		KHL_High_Severity_Check		LPAR400J:SYS:HEALTHCHECK				
Critical	Open		KHL_XCF_Paths_Problem	2	LPAR400J:ZOS:ManagementCons				

Message Log

Status	Name	Display Item	Origin Node	Global Timesta
Open	KHL_Paging_Dataset_Utilization		LPAR400J:SYS:AVAILABILITY	01/24/07 10:18
Open	KHL_High_Severity_Check		LPAR400J:SP13:HEALTHCHECK	01/22/07 10:11
Open	KHL_AddressSpace_Waiting		LPAR400J:SP13:AVAILABILITY	01/22/07 10:11
Open	KHL_High_Severity_Check		LPAR400J:SYSL:HEALTHCHECK	01/22/07 10:10
Open	KHL_AddressSpace_Waiting		LPAR400J:SYSL:AVAILABILITY	01/22/07 10:10
Open	KHL_XCF_Paths_Problem	6	LPAR400J:ZOS:ManagementConsole	01/22/07 10:06
Open	KHL_High_Severity_Check		LPAR400J:SP11:HEALTHCHECK	01/22/07 09:58
Open	KHL_AddressSpace_Waiting		LPAR400J:SP11:AVAILABILITY	01/22/07 09:58
Open	Crypto_No_PCI_Coprocessors		LPAR400J:SP13:MVSSYS	01/22/07 09:56
Open	Crypto_Internal_Error		LPAR400J:SP11:MVSSYS	01/22/07 09:43

Hub Time: Wed, 01/24/2007 04:20 PM

Server Available

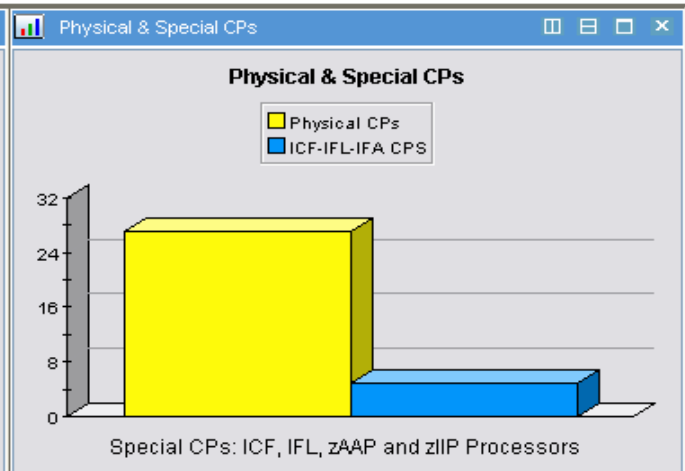
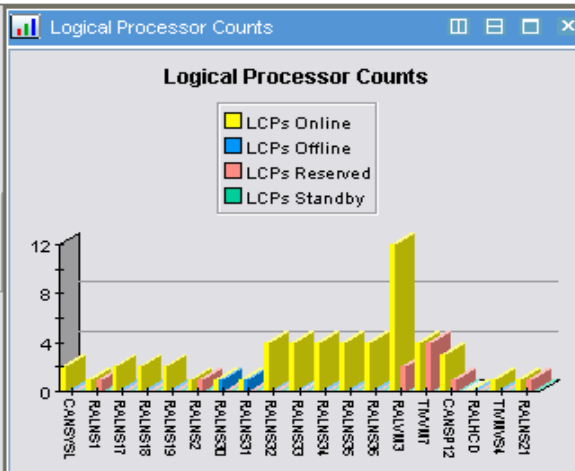
Enterprise Status - IBM-PSQEU4XHHBD - JWINT

start | Joseph H Wintert... | 12 Sametime Co... | Enterprise Statu... | Microsoft PowerP... | Address | 4:20 PM



View: Physical

- SP13
- SP22
- SP23
- SYS
- SYSL
- MVS Operating System
- z/OS Management Console
 - LPAR400J:SYSL:AVAILABILITY
 - Address Space Data for z/OS
 - Operations Status Data for z/OS
 - Paging Dataset Data for z/OS
 - LPAR Clusters Data for z/OS



LPAR Clusters Information

LPAR Clusters Information

Cluster Name	LPAR Name	LCPs Online	LCPs Offline	LCPs Reserved	LCPs Standby	CP Status	LPAR Status	CPC Model#	CPC Serial#	Physical CPs	Special CPs	Storage (Meg)	Timestamp
LPAR400J.B36A.2084	CANSYSL	2	0	0	0	SHR	Active	2084-D32	01B36A	27	5	1024	01/24/07 15:33:49
CMQBT1.B36A.2084	RALNS1	1	0	1	0	DED	Active	2084-D32	01B36A	27	5	6144	01/24/07 15:33:49
NIVTPLEX.B36A.2084	RALNS17	2	0	0	0	SHR	Active	2084-D32	01B36A	27	5	4096	01/24/07 15:33:49
NIVTPLEX.B36A.2084	RALNS18	2	0	0	0	SHR	Active	2084-D32	01B36A	27	5	4096	01/24/07 15:33:49
NIVTPLEX.B36A.2084	RALNS19	2	0	0	0	SHR	Active	2084-D32	01B36A	27	5	4096	01/24/07 15:33:49
XESDEV.B36A.2084	RALNS2	1	0	1	0	DED	Active	2084-D32	01B36A	27	5	6144	01/24/07 15:33:49
RALNS30.B36A.2084	RALNS30	1	1	0	0	DED	Active	2084-D32	01B36A	27	5	4096	01/24/07 15:33:49
N/A	RALNS31	1	1	0	0	DED	Active	2084-D32	01B36A	27	5	4096	01/24/07 15:33:49
PLEX1.B36A.2084	RALNS32	4	0	0	0	DED	Active	2084-D32	01B36A	27	5	8192	01/24/07 15:33:49
PORPLX.B36A.2084	RALNS33	4	0	0	0	DED	Active	2084-D32	01B36A	27	5	6144	01/24/07 15:33:49
PORPLX.B36A.2084	RALNS34	4	0	0	0	DED	Active	2084-D32	01B36A	27	5	6144	01/24/07 15:33:49
PORPLX.B36A.2084	RALNS35	4	0	0	0	DED	Active	2084-D32	01B36A	27	5	6144	01/24/07 15:33:49
PORPLX.B36A.2084	RALNS36	4	0	0	0	SHR	Active	2084-D32	01B36A	27	5	6144	01/24/07 15:33:49
N/A	RALVM3	12	0	2	0	SHR	Active	2084-D32	01B36A	27	5	131072	01/24/07 15:33:49
N/A	TIVVM7	4	0	4	0	SHR	Active	2084-D32	01B36A	27	5	12288	01/24/07 15:33:49
LPAR400J.B36A.2084	CANSPI2	3	0	1	0	SHR	Active	2084-D32	01B36A	27	5	1408	01/24/07 15:33:49
N/A	RALHCD	0	0	0	0	DED	Deactivated	2084-D32	01B36A	27	5	0	01/24/07 15:33:49

Note the Storage on each LPAR

View: Physical

- SP22
- SP23
- SYS
 - MVS Operating System
 - z/OS Management Console
 - LPAR400J:SYS:AVAILABILITY
 - Address Space Data for z/OS
 - Operations Status Data for z/OS
 - Paging Dataset Data for z/OS
 - LPAR Clusters Data for z/OS
 - USS Address Spaces and Processes
 - LPAR400J:SYS:HEALTHCHECK

USS (Dubbed) Address Spaces

Page: 1 of 2

Sysplex Name	SMFID	SysName	ASID	A/S Name	A/S Type	Step Name	Userid	Service Class
LPAR400J	SYS	SYSG	0X000E	OMVS	STC	OMVS		SYSTEM
LPAR400J	SYS	SYSG	0X001C	TCPIPG	STC	TCPIPG	DCUSER0	SYSSTC
LPAR400J	SYS	SYSG	0X0020	BPX0INIT	STC	BPX0INIT		SYSTEM
LPAR400J	SYS	SYSG	0X0023	\$GNSDSST	STC	\$GNSDSST	\$GNSDSST	STCPROD
LPAR400J	SYS	SYSG	0X0026	NET25	STC	NET	DCUSER	SYSSTC
LPAR400J	SYS	SYSG	0X0090	CICSR88L	STC	CICSR88L	CICSR88L	STCONLN
LPAR400J	SYS	SYSG	0X0093	\$NETVG	STC	\$NETVG	\$NETVG	STCPROD
LPAR400J	SYS	SYSG	0X0097	XCXS31L	STC	XCXS31L	XCXS31L	STCCMS
LPAR400J	SYS	SYSG	0X0099	INETD5	APPC	STEP1	DCUSER0	OMVSJOBS
LPAR400J	SYS	SYSG	0X00A1	HZSPROC	STC	HZSPROC	DCUSER0	STC
LPAR400J	SYS	SYSG	0X00A3	Q5G3CHIN	STC	Q5G3CHIN	Q5G3CHIN	STC
LPAR400J	SYS	SYSG	0X00A4	M5GBRMTG	STC	M5GBRMTG	M5GBRMTG	STC

USS Processes

Sysplex Name	SMFID	SysName	Process Status	Process ID	Parent Process ID	ASID	Jobname	Command Name
LPAR400J	SYS	SYSG	More Than One Open Task In Process	1	0	0X0020	BPX0INIT	BPXPINPR
LPAR400J	SYS	SYSG	One Regular Task in One Process in Addr Space	17039362	1	0X00A5	S2AEDSST	KLV
LPAR400J	SYS	SYSG	More Than One Open Task In Process	262147	1	0X0026	NET25	ISTMGCEH
LPAR400J	SYS	SYSG	More Than One Open Task In Process	50593797	1	0X00A4	M5GBRMTG	KLV
LPAR400J	SYS	SYSG	Spa...	262150	1	0X001C	TCPIPG	EZBTCPIP
LPAR400J	SYS	SYSG		17039367	1	0X0097	XCXS31L	KXSSRVR
LPAR400J	SYS	SYSG		262152	1	0X001C	TCPIPG	EZBTTSSL
LPAR400J	SYS	SYSG		262153	1	0X001C	TCPIPG	EZBTMCTL
LPAR400J	SYS	SYSG		262154	1	0X001C	TCPIPG	EZACFALG
LPAR400J	SYS	SYSG		262155	1	0X001C	TCPIPG	EZASASUB
LPAR400J	SYS	SYSG		17039372	1	0X00A1	HZSPROC	HZSTKSCH
LPAR400J	SYS	SYSG	Spa...	262157	1	0X001C	TCPIPG	EZBTTMST
LPAR400J	SYS	SYSG	One Regular Task in One Process in Addr Space	17039374	1	0X00B6	OSNMPPDG	EZASNMPPD
LPAR400J	SYS	SYSG	One Regular Task in One Process in Addr Space	33816591	1	0X00B5	\$PORTG	PORTMAP
LPAR400J	SYS	SYSG	One Regular Task in One Process in Addr Space	262160	1	0X00B4	\$ETPG1	ETPD

What USS work is running in this z/OS image?



IBM OMEGAMON z/OS Management Console Version 4.1.0

New Sysplex Availability Information

- 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
- XCF Paths Data for Sysplex
- XCF Systems Data for Sysplex
- z/OS Management Console
 - Coupling Facility Policy Data for Sysplex
 - Coupling Facility Systems Data for Sysplex
 - Coupling Facility Structures Data for Sysplex
 - Coupling Facility Paths Data for Sysplex
 - XCF Systems Data for Sysplex
 - XCF Paths Data for Sysplex

z/OS system and Address Space using this CF Structure

Users of CF Structure

Address Space	ASID	Connection Name	System Name	Connection Status	AllowRebuild	Allow User Managed Duplexing	AllowAlter	System Managed Processing	Suspend
IXGLOGR	0X0015	IXGLOGR_SP13	SP13	Active	Yes	No	Yes	No	unavailable
IXGLOGR	0X0015	IXGLOGR_SP11	SP11	Active	Yes	No	Yes	No	unavailable
IXGLOGR	0X0015	IXGLOGR_SP12	SP12	Active	Yes	No	Yes	No	unavailable
IXGLOGR	0X0014	IXGLOGR_SYSG	SYSG	Active	Yes	No	Yes	No	unavailable
IXGLOGR	0X0015	IXGLOGR_SYSL	SYSL	Active	Yes	No	Yes	No	unavailable
IXGLOGR	0X0014	IXGLOGR_SP22	SP22	Active	Yes	No	Yes	No	unavailable

Coupling Facility Policy Data for Sysplex - IBM-PSQEU4XHHBD - JWINT

File Edit View Help

View: Physical

- 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
- XCF Paths Data for Sysplex
- XCF Systems Data for Sysplex
- z/OS Management Console
 - Coupling Facility Policy Data for Sysplex
 - Coupling Facility Systems Data for Sysplex
 - Coupling Facility Structures Data for Sysplex
 - Coupling Facility Paths Data for Sysplex
 - XCF Systems Data for Sysplex
 - XCF Paths Data for Sysplex

Physical

Coupling Facility Policy

Coupling Facility Policy

Policy Name	Date Time Activate	Reformat Required
CFRMPOL3	01/04/07 11:31:33	No

Hub Time: Wed, 01/24/2007 03:40 PM Server Available Coupling Facility Policy Data for Sysplex - IBM-PSQEU4XHHBD - JWINT

start [Taskbar icons: c:\, Joseph H W..., 8 Sametim..., Coupling F..., You and IB..., Microsoft P..., Address] 3:39 PM

Who may be a good candidate for zMC?

- 1) Small z Shop with need of some availability monitoring – use to get them use to new interface**
- 2) Current OMEGAMON XE for z/OS site that wants to add in z/OS Health Checker information and use z/MC for some availability alerting**
- 3) Large z Shop training Distributed skilled people on z/OS**
- 4) Any z Shop looking to run an application on System z9 on Linux on z. Put your TEMS, TEPS over on Linux on z.**
- 5) New interface for Health Checker information for any shop.**



IBM OMEGAMON z/OS Management Console Version 4.1.0

Installation and Publications

Platform Support and Pre-Reqs

<http://www-03.ibm.com/servers/eserver/zseries/zos/downloads/>

- z/OS 1.4 and Higher z/OS systems
- Supporting components required by and supplied with the Management Console package:
 - ▶ Installation/Configuration Assistance Tool (ICAT) Version 310
 - ▶ Tivoli Enterprise Monitoring Server (TEMS) Version 610 with FP4 or higher
 - ▶ Tivoli Enterprise Portal (TEP) Version 610 with FP4 or higher
 - ▶ Tivoli Enterprise Portal Server (TEPS) Version 610 FP4 or higher
- Other required components:
 - ▶ DB2/UDB 8.2
 - ▶ At least one PC or server running Windows XP Pro w/SP1 or higher or Windows 2000 w/SP3

Publications- “Please use the Planning, Installation and Configuration Guide”

- V4.1.0 z/MC Pubs available at :

<http://publib.boulder.ibm.com/infocenter/tivihelp/v15r1>

- ▶ **Planning, Installation, and Configuration Guide (GC32-1954-00)**

Provides instructions for Planning, Installation and configuring the product on all supported platforms. It includes:

- a list of prerequisite steps to complete before configuring the product.
- an overview of the process for configuring the product.
- instructions for configuring the monitoring agent in a new or existing ITM 6.1 environment.

- ▶ **Program Directory V4.1.0: (GI10-3381-00)**

Provides instructions for Installation of the z/OS side.

- ▶ **OMEGAMON z/OS Management Console User’s Guide (GC32-1955-00)**

This book tells how to use the product to monitor z/OS systems. It also presents several product-specific monitoring scenarios and explains product messages.

The online help contains most of the information found in this book.

Follow the Program Directory for z/OS zMC

From the web site:

z/OS Downloads – TEMS and zMC Agent

Read Me – HL410.README.txt

OMEGAMON z/OS Mgt Console V4.1.0 in pax format

Maintenance – PTF's

Program Directory

Workstation Downloads

- **IBM OMEGAMON z/OS Management Console Data Files for z/OS CD-ROM electronic image in .zip format**
LCD7-6690-00.zip (65.5MB)
- **IBM OMEGAMON z/OS Management Console Data Files for z/OS CD-ROM electronic image in .tar format**
LCD7-6690-00.tar (497.4MB)
- **IBM Tivoli Monitoring CD-ROM Vol 1. w/FP4 (Windows) electronic image**
LCD7-0789-06.zip (397.7MB)
- **IBM Tivoli Monitoring CD-ROM Vol 5. w/FP4 (Linux on zSeries - Red Hat and SuSE) electronic image**
LCD7-0836-06.tar (564.1MB)

DB2/UDB Download

- **DB2 UDB Enterprise Server Edition 8.2: Windows CD-ROM electronic image**
LCD7-0901-00.zip (424.4MB)
- **DB2 UDB Enterprise Server Edition 8.2: Linux for OS/390 (32-bit) CD-ROM electronic image**
LCD7-0889-00.tar (360.8MB)
- **DB2 UDB Enterprise Server Edition 8.2: Linux for zSeries (64-bit) CD-ROM electronic image**
LCD7-0890-00.tar (344.8MB)

DB2/UDB is included as part of the zMC product use for your zMC use.

What you need for TEP/TEPS on Windows:

1) DB2 UDB Enterprise Server Edition 8.2: Windows CD-ROM electronic image

LCD7-0901-00.zip (424.4MB) unzip then use setup.exe

2) IBM Tivoli Monitoring CD-ROM Vol 1. w/FP4 (Windows) electronic image

LCD7-0789-06.zip (397.7MB) unzip and use in windows directory – setup.exe

3) IBM OMEGAMON z/OS Management Console Data Files for z/OS CD-ROM electronic image in .zip format

LCD7-6690-00.zip (65.5MB) unzip and use setupwin32.exe

Please do the Install/Configure in this order using the manual

Remember to Register for Product Support

Using zMC and OMEGAMON XE together

Problem solving with zMC and XE

Health Monitor Checks - IBM-PSQEU4XHHBD - JWINT

File Edit View Help

View: Physical

Address Space Overview
More...
z/OS Management Console
LPAR400J:SP13:AVAILABILITY
Address Space Data for z/OS
Operations Status Data for z/OS
Paging Dataset Data for z/OS
LPAR Clusters Data for z/OS
USS Address Spaces and P
LPAR400J:SP13:HEALTHCHECK

Exception Check Counts

Run Counts

Health Checker Checks

Check Owner	Check Name	Check State	Check Status	Result	Diag1	Diag2	DiagFrom	Gl
IBMXCF	XCF_CDS_SEPARATION	ACTIVE(ENABLED)	EXCEPTION-HIGH	12	00000000	00000000	Unknown	NC
IBMRACF	RACF_SENSITIVE_RESOURCES	ACTIVE(ENABLED)	EXCEPTION-HIGH	12	00000000	00000000	Unknown	NC
IBMVSAM	VSM_CSA_THRESHOLD	ACTIVE(ENABLED)	EXCEPTION-HIGH	12	00000000	00000000	Unknown	NC
IBMVSAM	VSAM_INDEX_TRAP	ACTIVE(ENABLED)	EXCEPTION-MEDIUM	8	00000000	00000000	Unknown	NC
IBMVCNZ	CNZ_SYSCONS_MSCOPE	ACTIVE(ENABLED)	EXCEPTION-MEDIUM	8	00000000	00000000	Unknown	NC
IBMVSAM	VSM_SGA_THRESHOLD	ACTIVE(ENABLED)	EXCEPTION-MEDIUM	8	00000000	00000000	Unknown	NC
IBMUSS	USS_FILESYS_CONFIG	ACTIVE(ENABLED)	EXCEPTION-MEDIUM	8	00000000	00000000	Unknown	NC
IBMXCF	XCF_SIG_PATH_SEPARATION	ACTIVE(ENABLED)	EXCEPTION-MEDIUM	8	00000000	00000000	Unknown	NC
IBMXCF	XCF_SIG_STR_SIZE	ACTIVE(ENABLED)	EXCEPTION-MEDIUM	8	00000000	00000000	Unknown	NC
IBMXCF	XCF_FDI	ACTIVE(ENABLED)	EXCEPTION-MEDIUM	8	00000000	00000000	Unknown	NC
IBMXCF	XCF_SFM_ACTIVE	ACTIVE(ENABLED)	EXCEPTION-MEDIUM	8	00000000	00000000	Unknown	NC
IBMASM	ASM_LOCAL_SLOT_USAGE	ACTIVE(ENABLED)	EXCEPTION-MEDIUM	8	00000000	00000000	Unknown	NC
IBMRACF	RACF_TEMPDSN_ACTIVE	ACTIVE(ENABLED)	EXCEPTION-MEDIUM	8	00000000	00000000	Unknown	NC
IBMGRS	GRS_RNL_IGNORED_CONV	ACTIVE(ENABLED)	EXCEPTION-LOW	4	00000000	00000000	Unknown	YE
IBMVCNZ	CNZ_CONSOLE_MSCOPE_AND_R	ACTIVE(ENABLED)	EXCEPTION-LOW	4	00000000	00000000	Unknown	NC
IBMVCNZ	CNZ_SYSCONS_ROUTCODE	ACTIVE(ENABLED)	EXCEPTION-LOW	4	00000000	00000000	Unknown	NC
IBMVCNZ	CNZ_AMRF_EVENTUAL_ACTION_MSGS	ACTIVE(ENABLED)	EXCEPTION-LOW	4	00000000	00000000	Unknown	NC
IBMVCNZ	CNZ_CONSOLE_ROUTCODE_11	ACTIVE(ENABLED)	EXCEPTION-LOW	4	00000000	00000000	Unknown	NC
IBMASM	ASM_NUMBER_LOCAL_DATASETS	ACTIVE(ENABLED)	EXCEPTION-LOW	4	00000000	00000000	Unknown	NC

Hub Time: Wed, 01/10/2007 10:14 AM Server Available Health Monitor Checks - IBM-PSQEU4XHHBD - JWINT

start Joseph H ... Microsoft ... Microsoft ... Health M... Microsoft ... Address 10:14 AM

Lets explore the VSM_CSA Red Exception.

CheckMessages - IBM-PSQEU4XHHBD - JWINT

File Edit View Help

View: Physical

Operations Status Data for z/OS
Paging Dataset Data for z/OS

Physical

Messages for Check: \$CHKNAME\$, Owner: \$CHKOWN\$

Page: 1 of 2

Check Text

IGVH100E Check Reason: Monitor the allocation of CSA

IGVH503I Threshold History Report

Storage Location	Current Alloc	System HWM	Prior IPL HWM	Current size
DATE		01/07/2007	01/06/2007	
TIME		07:36:15	18:08:38	
ESQA	14270K	15047K	12171K	14916K
SQA	387K	516K	516K	1256K
ECSA	58816K	63223K	32102K	70300K
CSA	652K	883K	639K	5048K

IGVH502I Five Highest Users of Common Storage (CSA/ECSA/SQA/ESQA)

Asid	JobName	JobId	CSA	ECSA	SQA	ESQA
0021	NET33	STC01326	00002860	0065ABE0	00000000	00001490
			(11K)	(6507K)	(0)	(6K)
008C	IMS910GC	STC01465	0002C5E0	00476488	00000BE8	00000498
			(178K)	(4570K)	(3K)	(2K)
0001	*MASTER*	00015158	0024A8B0	00008010	00107910
			(85K)	(2347K)	(33K)	(1055K)
009B	D81FMSTR	STC01513	00008088	0032C8A8	00000040	000027F8
			(33K)	(3251K)	(1K)	(10K)
0086	D71FMSTR	STC01508	00007BD8	0023B028	00000040	00002720
			(31K)	(2285K)	(1K)	(10K)

IGVH502I Five Highest Users of Common Storage Below 16M (CSA/SQA)

NET33 sure is a large user of ECSA

Hub Time: Wed, 01/10/2007 10:16 AM Server Available CheckMessages - IBM-PSQEU4XHHBD - JWINT

start Joseph H ... Microsoft ... Microsoft ... CheckMe... Microsoft ... Address 10:16 AM

NET33 sure is a large user of ECSA

Address Space Data for z/OS - IBM-PSQEU4XHHBD - JWINT

File Edit View Help

View: Physical

Address Space Information

Job Name	Step Name	Proc Step	SvcClass	SvcClass Period	ASID	JESJOBID	Waiting
MASTER			SYSTEM	1	0X0001	STC01321	Working
PCAUTH	PCAUTH		SYSTEM	1	0X0002		Working
RASP	RASP		SYSTEM	1	0X0003		Working
TRACE	TRACE		SYSTEM	1	0X0004		Working
DUMPSRV	DUMPSRV	DUMPSRV	SYSTEM	1	0X0005		Working
XCFAS	XCFAS	IEFPROC	SYSTEM	1	0X0006		Working
GRS	GRS		SYSTEM	1	0X0007		Working
SMSPDSE	SMSPDSE		SYSTEM	1	0X0008		Working
SMSVSAM	SMSVSAM	IEFPROC	SYSTEM	1	0X0009		Working
CONSOLE	CONSOLE		SYSTEM	1	0X000A		Working
WLM	WLM	IEFPROC	SYSTEM	1	0X000B		Working
ANTMAIN	ANTMAIN	IEFPROC	SYSTEM	1	0X000C		Working
ANTAS000	ANTAS000	IEFPROC	SYSSTC	1	0X000D		Working
DEVMAN	DEVMAN	IEFPROC	SYSSTC	1	0X000E		Working
OMVS	OMVS	OMVS	SYSSTC	1	0X000F		Working
IEFSCHAS	IEFSCHAS		SYSSTC	1	0X0010		Working
JESXCF	JESXCF	IEFPROC	SYSSTC	1	0X0011		Working
ALLOCAS	ALLOCAS		SYSSTC	1	0X0012		Working
IOSAS	IOSAS	IEFPROC	SYSSTC	1	0X0013		Working
IXGLOGR	IXGLOGR	IEFPROC	SYSSTC	1	0X0014		Working
SMS	SMS	IEFPROC	SYSSTC	1	0X0015		Working
SMF	SMF	IEFPROC	SYSSTC	1	0X0016		Working
ASCHINT	ASCHINT	IEFPROC	SYSSTC	1	0X0017	STC01317	Waiting
\$AFOP13	AFOPER	OGEXEC	STCPROD	1	0X0019	STC01324	Working
ASCH	ASCH	ASCH	SYSSTC	1	0X001A		Working
ATRRRS	ATRRRS	RRS	STC	2	0X001B		Working
ASCHINT	ASCHINT	IEFPROC	SYSSTC	1	0X001C	STC01316	Waiting
DLF	DLF	DLF	SYSSTC	1	0X001D		Working
JES2	JES2	IEFPROC	SYSSTC	1	0X001F		Working
IIA	IIA	IIA	SYSSTC	1	0X0020		Working
			SYSSTC	1	0X0021	STC01326	Working
			SYSSTC	1	0X0022	STC01328	Working
			SYSSTC	1	0X0023		Working
			STCONLN	1	0X0024	STC01509	Working
			SYSSTC	1	0X0025	STC01329	Working
			STC	1	0X0026	STC01385	Working

XE Address Space Overview

XE Address Space Bottleneck

Link Wizard...

Link Anchor...

Lets go over to XE on z/OS for more exploring

Hub Time: Wed, 01/10/2007 10:17 AM Server Available Address Space Data for z/OS - IBM-PSQEU4XHHBD - JWINT

start Joseph H ... Microsoft ... Microsoft ... Address ... Microsoft ... Address 10:17 AM

Address Space Overview - IBM-PSQEU4XHHBD - JWINT

File Edit View Help

View: Physical

- Coupling Facility Structures Data for Sysplex
- Coupling Facility Systems Data for Sysplex
- 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
- XCF Paths Data for Sysplex
- XCF Systems Data for Sysplex
- z/OS Management Console

CPU Usage Page: 1 of 2

Where usage greater than 5%

Selected Execution States Page: 1 of 2

Address Space Counts

Address Space Count	Started Task Count	Batch Job Count	TSO Count
100	100	100	100

- Address Space CPU Utilization
- Address Space Storage
- Address Space Bottleneck Summary
- Address Space Common Storage - Active Users**
- Link Wizard...
- Link Anchor...

Central Storage Page: 1 of 2

Where frame counts are greater than 0

Address Space Common Storage - Active Users

Hub Time: Wed, 01/10/2007 10:18 AM Server Available Address Space Overview - IBM-PSQEU4XHHBD - JWINT

start | Joseph H ... | Microsoft ... | Microsoft ... | Address ... | Microsoft ... | Address | 10:18 AM

We are chasing ECDSA/Common usage by Address Space

Address Space Common Storage - Active Users - IBM-PSQEU4XHHBD - JWINT

File Edit View Help

View: Physical

Service Classes Data for Sysplex
 Service Definition Data for Sysplex
 Shared DASD Groups Data For Sysplex
 XCF Groups Data for Sysplex
 XCF Paths Data for Sysplex
 XCF Systems Data for Sysplex
 z/OS Management Console
 SP11
 SP12
 SP13
 MVS Operating System
 LPAR400J:SP13:MVSSYS
 Address Space Overview
 More...
 z/OS Management Console
 LPAR400J:SP13:AVAILABILITY
 Address Space Data for z/C
 Operations Status Data for z/

CSA Page: 1 of 3
 % of Total CSA

ECSA Page: 1 of 3
 % of Total ECSA

SQA Page: 1 of 3
 % of Total SQA

ESQA Page: 1 of 3
 % of Total ESQA

Here are the big ECSA users, *SYSTEM* and our old friend NET33

Active Users of Common Storage Page: 1 of 3

Job Name	ASID	CSA Orphaned	CSA In Use	% of Total CSA	ECSA Orphaned	ECSA In Use	% of Total ECSA	SQA Orphaned	SQA In Use	% of Total SQA	ESQA Orphaned	ESQA In Use	% Total
SYSTEM	0X0000	No	159744	3.1	No	18874368	26.7	No	284672	22.1	No	9470976	
Address Space Common Storage - Orphaned Elements					0	6663168	9.4	unavailable	0	0.0	No	5120	
Address Space Common Storage - Allocation Details					0	2402304	3.4	No	32768	2.5	No	1079296	
Address Space Common Storage - Trend Details					0	2304000	3.2	No	64	0.0	No	9216	
Link Wizard...					0	1774592	2.5	No	256	0.0	No	9216	
Link Anchor...					0	1581056	2.2	unavailable	0	0.0	No	2048	
					0	812032	1.1	No	64	0.0	No	5120	
					0	329728	0.5	No	64	0.0	No	9216	
					0	182272	0.3	unavailable	0	0.0	No	4096	
					0	169984	0.2	unavailable	0	0.0	unavailable	0	

For System SP13

Hub Time: Wed, 01/10/2007 10:19 AM Server Available Address Space Common Storage - Active Users - IBM-PSQEU4XHHBD - JWINT

start Joseph H ... Microsoft ... Microsoft ... Address ... Microsoft ... Address 10:19 AM



View: Physical

- Service Classes Data for Sysplex
- Service Definition Data for Sysplex
- Shared DASD Groups Data For Sysplex
- XCF Groups Data for Sysplex
- XCF Paths Data for Sysplex
- XCF Systems Data for Sysplex
- z/OS Management Console
 - SP11
 - SP12
 - SP13
 - MVS Operating System
 - LPAR400J:SP13:MYSSYS
 - Address Space Overview
 - More...
 - z/OS Management Console
 - LPAR400J:SP13:AVAILABILITY
 - Address Space Data for z/OS
 - Operations Status Data for z/OS

CSA Orphaned Storage Elements

Job Name	ASID
AF0G018	0X00A1
AF0G018	0X00A1
AF0G018	0X00A1
0H3S0I00	0X008E
0H3S0I00	0X008E

Look at the Large ECDSA Orphaned Storage Elements !! This may be the root cause of our problem.

Page: 1 of 2

Fixed	Subpool	Storage Key	Request Return Addr
No	241	0	0X0001B1
No	241	0	0X00022
No	241	0	0X00022
No	241	7	0X0A148
No	241	7	0X0000E

ECDSA Orphaned Storage Elements

Job Name	ASID	Start Address	End Address	Size	Age	Age Units	Fixed	Subpool	Storage Key	Requ Return /
§3N3DSST	0X0066	0X080C52C8	0X080E4FFF	130360	003:02	Days	No	241	0	0X0B
IRRDP TAB	0X001E	0X092550B8	0X09269FFF	85832	003:02	Days	No	241	0	0X00
0H3S020C	0X0088	0X06B8D000	0X06B9DFFF	69632	002:11	Days	No	241	7	0X07
0H3S020C	0X0088	0X064A1000	0X064B1FFF	69632	002:08	Days	No	241	7	0X07
0H3S020C	0X0088	0X065B6000	0X065C6FFF	69632	002:10	Days	No	241	7	0X07

Page: 1 of 2

Job Name	ASID	Start Address	End Address	Size	Age	Age Units	Fixed	Subpool	Storage Key	Requ Return /
CATALOG	0X0010	0X00FCF120	0X00FCF19F	128	003:02	Days	Yes			
IMSA10GC	0X00A3	0X00FB0B00	0X00FB0B7F	128	002:10	Days	Yes			
IMSA10GC	0X00A3	0X00FC6D28	0X00FC6D3F	24	002:10	Days	Yes			
IMSA10GC	0X00A3	0X00FCA688	0X00FCA6B7	48	002:10	Days	Yes			
IMSA10GD	0X00A4	0X00FB0540	0X00FB05BF	128	002:10	Days	Yes			
IMSA10GD	0X00A4	0X00FB05C0	0X00FB063F	128	002:10	Days	Yes			
M5GBRMTD	0X0065	0X00FC3FD0	0X00FC3FFF	48	003:02	Days	Yes			
M5GBRMTD	0X0065	0X00FCD010	0X00FCD03F	48	003:02	Days	Yes			

SQA Orphaned Storage Elements

Page: 1 of 2

Job Name	ASID	Start Address	End Address	Size	Age	Age Units	Fixed
CATALOG	0X0010	0X00FCF120	0X00FCF19F	128	003:02	Days	Yes
IMSA10GC	0X00A3	0X00FB0B00	0X00FB0B7F	128	002:10	Days	Yes
IMSA10GC	0X00A3	0X00FC6D28	0X00FC6D3F	24	002:10	Days	Yes
IMSA10GC	0X00A3	0X00FCA688	0X00FCA6B7	48	002:10	Days	Yes
IMSA10GD	0X00A4	0X00FB0540	0X00FB05BF	128	002:10	Days	Yes
IMSA10GD	0X00A4	0X00FB05C0	0X00FB063F	128	002:10	Days	Yes
M5GBRMTD	0X0065	0X00FC3FD0	0X00FC3FFF	48	003:02	Days	Yes
M5GBRMTD	0X0065	0X00FCD010	0X00FCD03F	48	003:02	Days	Yes

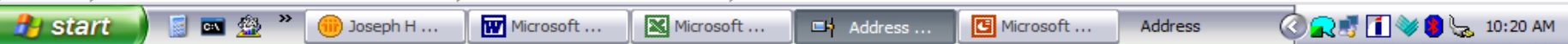
For System SP13

ESQA Orphaned Storage Elements

Page: 1 of 2

Job Name	ASID	Start Address	End Address	Size	Age	Age Units	Fixed
AF0G018	0X00A1	0X01B030E0	0X01B04557	5240	002:10	Days	Yes
0H3MQ	0X008E	0X026D4800	0X026D4FFF	2048	002:23	Days	No
0H3MQ	0X008E	0X026D4000	0X026D47FF	2048	002:23	Days	No
0H3MQ	0X008E	0X02098160	0X0209895F	2048	002:23	Days	No
0H3MQ	0X008E	0X01FA3800	0X01FA3FFF	2048	002:23	Days	No
0H3MQ	0X008E	0X01FA5488	0X01FA5C87	2048	002:23	Days	No
0H3MQ	0X008E	0X01CC6488	0X01CC6C87	2048	002:23	Days	No
CATALOG	0X0010	0X026112C0	0X026116BF	1024	003:02	Days	No
0H3MQ	0X008E	0X01FA3488	0X01FA37FF	888	002:23	Days	No
0H3MQ	0X008E	0X01FA3110	0X01FA3487	888	002:23	Days	No

For System SP13



- SP23
 - MVS Operating System
 - LPAR400J:SP23:MVSSYS
 - Z/OS Management Console
- SYS

Severity	Status	Owner	Situation Name	Display Item	Source
Warning	Open		KHL_AddressSpace_Waiting		LPAR400J:SYSL:AVAILABILITY
Warning	Open		Crypto_No_PCI_Coprocessors		LPAR400J:SP13:MVSSYS
Warning	Open		KHL_AddressSpace_Waiting		LPAR400J:SP13:AVAILABILITY

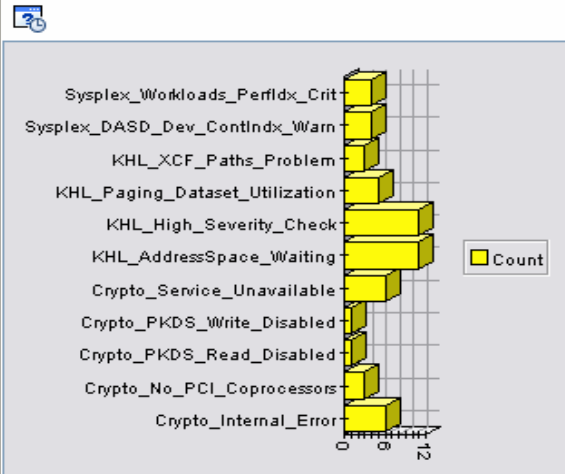
CRITICAL

KHL_Paging_Dataset_Utilization LPAR400J:SP23:AVAILABILITY 01/16/07 05:16:17

WARNING

KHL_AddressSpace_Waiting LPAR400J:SP23:AVAILABILITY 01/16/07 01:32:16

KFVMTM102I Select workspace link button to view situation event results for: KHL_Paging_Dataset_Utilization



Severity	Status	Owner	Situation Name	Display Item	Source	Impact	Opened	Local Timestamp	Type

Status	Name	Display Item	Origin Node	Global Time
Open	KHL_Paging_Dataset_Utilization		LPAR400J:SP23:AVAILABILITY	01/16/07 05:16:17
Open	Crypto_Internal_Error		LPAR400J:SP23:MVSSYS	01/16/07 01:32:16
Open	Crypto_Service_Unavailable		LPAR400J:SP23:MVSSYS	01/16/07 01:32:16
Open	Sysplex_Workloads_Perfdx_Crit		LPAR400J:MVS:SYSPLEX	01/16/07 01:32:16
Open	Sysplex_DASD_Dev_ContIndx_Warn		LPAR400J:MVS:SYSPLEX	01/16/07 01:32:16
Open	KHL_High_Severity_Check		LPAR400J:SP23:HEALTHCHECK	01/16/07 01:32:16
Open	KHL_AddressSpace_Waiting		LPAR400J:SP23:AVAILABILITY	01/16/07 01:32:16
Open	KHL_Paging_Dataset_Utilization		LPAR400J:SP11:AVAILABILITY	01/15/07 15:00:00
Open	KHL_High_Severity_Check		LPAR400J:SYS:HEALTHCHECK	01/15/07 15:00:00
Open	KHL_AddressSpace_Waiting		LPAR400J:SYSL:AVAILABILITY	01/15/07 15:00:00

Page Dataset Activity - IBM-PSQEU4XHHBD - JWINT

File Edit View Help

View: Physical

- Common Storage
- Cryptographic Coprocessors
- DASD MVS
- DASD MVS Devices
- Enclave Information
- Enqueue and Reserve Summ
- LPAR Clusters
- Operator Alerts
- Page Dataset Activity
- Real Storage
- System CPU Utilization
- System Paging Activity
- Tape Drives

Physical

Percent Full

Dataset Type	Percent Full
PLPA	100
Common	76
Local	54

Response Time

Dataset Type	Response Time
PLPA	5.3
Common	5.3
Local	5.3

Page Dataset Activity

Dataset Type	Address	Percent Full	Response Time	Errors	Page Rate
PLPA	0X5A73	100	5.3	0	0.0
Common	0X5A73	76	5.3	0	0.2
Local	0X5A73	54	5.3	0	1,456.3

For System SP23

Hub Time: Tue, 01/16/2007 10:15 AM Server Available Page Dataset Activity - IBM-PSQEU4XHHBD - JWINT

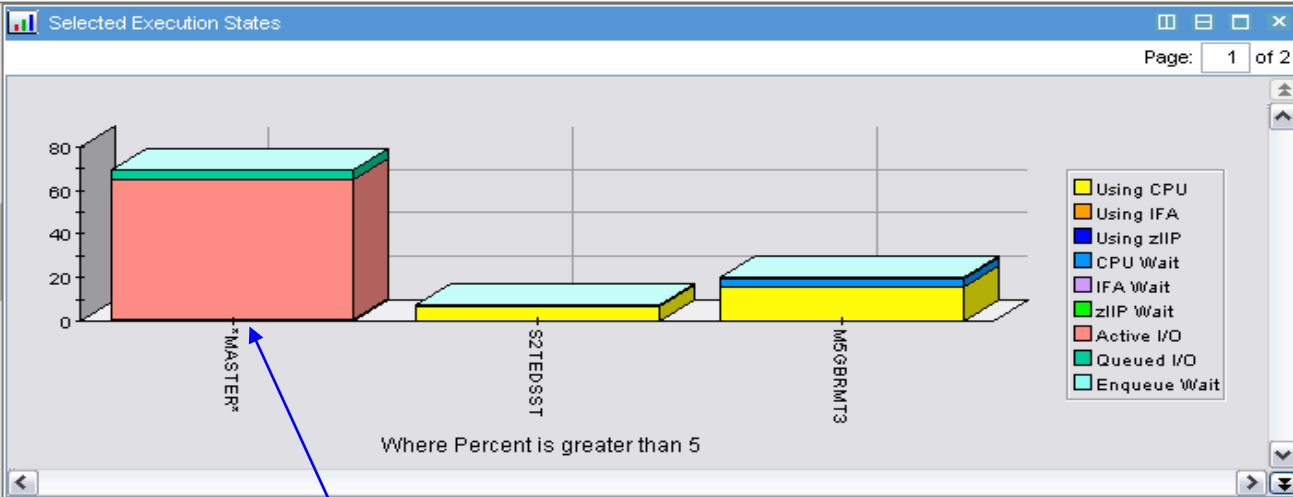
start Agenda For ABS... Microsoft Excel 3 Microsoft Po... Page Dataset A... Address 10:15 AM

We are paging at a large rate

View: Physical

- XCF Groups Data for Sysplex
- XCF Paths Data for Sysplex
- XCF Systems Data for Sysplex
- z/OS Management Console
- SP11
- SP12
- SP13
- SP22
- SP23
- MVS Operating System
 - LPAR400J:SP23:MVSSYS
 - Address Space Overview
 - Channel Path Activity

Physical



Address Space Bottlenecks Summary - Contention (%) by Resource

ASID	Job Name	Step Name	Proc Step	Service Class	Using CPU	Using IFA	Using zIIP	CPU Wait	IFA Wait	zIIP Wait	Active I/O	Queued I/O	Enqueue Wait	Tape Mount	Resource Group Capping	Paging Wait	Se V
0X0001	*MASTER*			SYSTEM	0.7	0.0	0.0	0.0	0.0	0.0	64.7	4.2	0.0	0.0	0.0	0.0	
0X0073	\$YNSDSST	\$YNSDSST	CMS	STCPROD	1.4	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0	5.1	
0X0006	YCFAS	YCFAS	IEFPROC	SYSTEM	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	
		IT3	TEMS	STC	15.9	0.0	0.0	3.6	0.0	0.0	0.7	0.0	0.0	0.0	0.0	72.4	
			ENGINE	STC	0.0											0.7	
0X0027	JES2	JES2	IEFPROC	SYSSTC	0.0											0.0	
0X000E	OMVS	OMVS	OMVS	SYSTEM	0.7											8.0	
0X006D	D71JDIST	D71JDIST	IEFPROC	STCONLN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0X006B	\$FTP231	STEP1		OMVSJOBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0X006A	D71JSPAS	D71JSPAS	IEFPROC	STCONLN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0X0069	RESOLVER	RESOLVER	IEFPROC	SYSSTC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0X0068	HZSPROC	HZSPROC	HZSPROC	STC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0X0067	BPXOINIT	BPXOINIT	BPXOINIT	SYSTEM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

MASTER is driving the I/O

For System SP23

Address Space Bottlenecks Detail - IBM-PSQEU4XHHBD - JWINT

File Edit View Help

View: Physical

Execution States for *MASTER*

Attribute	Percent	Resource		
Using CPU	1.2			
Active I/O	64.5	DASD	PAG230	5A73
Stimer Wait	30.3			
Queued I/O	3.8	DASD	PAG230	5A73

No surprise the I/O is to our paging volume!!

Address Space Bottlenecks Detail - Contention (%) by Resource

ASID	Job Name	Step Name	Proc Step	Service Class	Using CPU	Using IFA	Using zIIP	CPU Wait	IFA Wait	zIIP Wait	Active I/O	Queued I/O	Enqueue Wait	Tape Mount	Resource Group Capping	VIO Wait	Common Page-In	Hiperspace Page-In	Privat Page-I
0X0001	*MASTER*			SYSTEM	1.2	0.0	0.0	0.0	0.0	0.0	64.5	3.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0

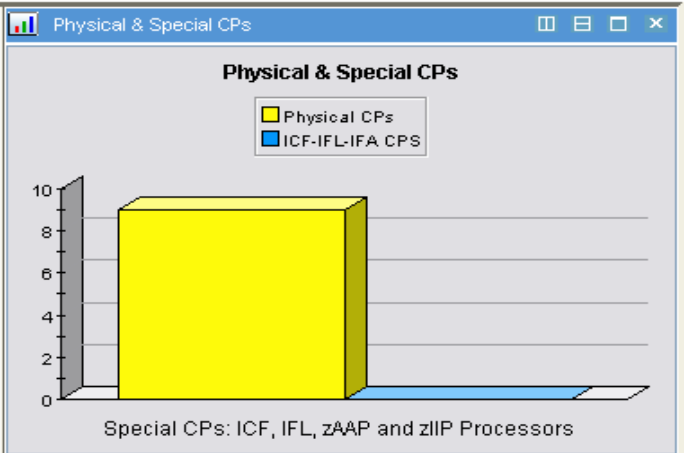
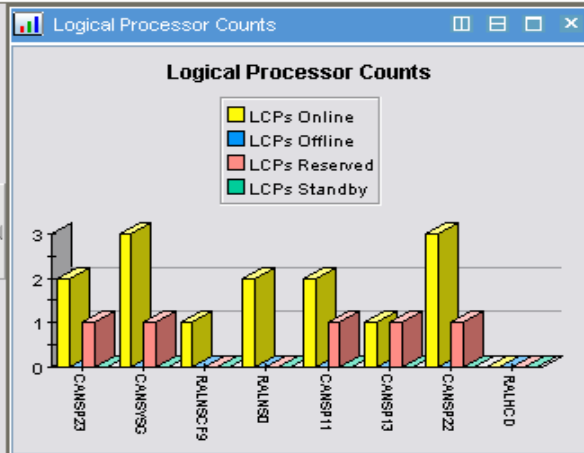
For System SP23

Hub Time: Tue, 01/16/2007 10:14 AM Server Available Address Space Bottlenecks Detail - IBM-PSQEU4XHHBD - JWINT

start Agenda For ABS... Microsoft Excel 3 Microsoft Po... Address Space ... Address 10:14 AM

View: Physical

- SP11
- SP12
- SP13
- SP22
- MVS Operating System
- z/OS Management Console
 - LPAR400J:SP22:AVAILABILITY
 - Address Space Data for z/OS
 - Operations Status Data for z/OS
 - Paging Dataset Data for z/OS
 - LPAR Clusters Data for z/OS



LPAR Clusters Information

LPAR Clusters Information

Cluster Name	LPAR Name	LCPs Online	LCPs Offline	LCPs Reserved	LCPs Standby	CP Status	LPAR Status	CPC Model#	CPC Serial#	Physical CPs	Special CPs	Storage (Meg)	Timestamp
LPAR400J.0960.2064	CANSP23	2	0	1	0	SHR	Active	2064-109	050960	9	0	256	01/10/07 11:10:52
LPAR400J.0960.2064	CANSYSG	3	0	1	0	SHR	Active	2064-109	050960	9	0	1792	01/10/07 11:10:52
	PALNSCF9	1	0	0	0	DED	Active	2064-109	050960	9	0	1024	01/10/07 11:10:52
	PALNS0	2	0	0	0	SHR	Active	2064-109	050960	9	0	2048	01/10/07 11:10:52
	CANSP11	2	0	1	0	SHR	Active	2064-109	050960	9	0	1024	01/10/07 11:10:52
	CANSP13	1	0	1	0	SHR	Active	2064-109	050960	9	0	768	01/10/07 11:10:52
	CANSP22	3	0	1	0	SHR	Active	2064-109	050960	9	0	1344	01/10/07 11:10:52
N/A	RALHCD	0	0	0	0	DED	Deactivated	2064-109	050960	9	0	0	01/10/07 11:10:52
N/A	PHYSICAL	9	0	0	0	SHR	Deactivated	2064-109	050960	9	0	0	01/10/07 11:10:52

And going to LPAR Cluster for SP23 we see 256Meg of Storage.

LPAR Clusters - IBM-PSQEU4XHHBD - JWINT

File Edit View Help

View: Physical

- SP11
- SP12
- SP13
- SP22
 - MVS Operating System
 - LPAR400J:SP22:MVSSYS
 - More...
 - LPAR Clusters
 - z/OS Management Console
 - LPAR400J:SP22:AVAILABILITY
 - Address Space Data for z/C
 - Queueing Status Data for z/C

Physical

LPAR Logical Utilization (e.g. Velocity)

Actual (Effective) vs. Target (Logical)

LPAR Physical Utilization

Actual (%CPU) vs. Target (%Weight)

CPC Model#	CPC Serial#	CPs %CPU	CPs %Overhead	CPs Weight	Physical CPs	Special CPs	CPs MSUs
2064-109	050960	35.8	1.0	650	9	0	265

Cluster Name	Physical %CPU	Overhead %CPU	Current Weight	Physical %Weight	Cluster LPARs
LPAR400J.0960.2064	24.7	0.4	450	69.2	5

Cluster Name	LPAR Name	Physical %CPU	Overhead %CPU	Current Weight	Physical %Weight	CPU Index	Effective %Weight	Logical %Weight	Effective Weight Index	Logical %CPU	9
LPAR400J.0960.2064	CANSP23	1.6	0.1	50	7.7	0.2	31.5	34.7	0.9	7.3	
LPAR400J.0960.2064	CANSYSG	7.2	0.1	175	26.9	0.3	70.0	80.7	0.9	21.5	
N/A	RALNSCF9	11.1	0.0	DED	DED	Unavailable	Unavailable	Unavailable	Unavailable	99.6	Un
N/A	RALNS0	0.0	0.0	200	30.8	0.0	0.0	138.6	0.0	0.0	
LPAR400J.0960.2064	CANSP11	1.3	0.1	50	7.7	0.2	47.0	34.7	1.4	5.7	
LPAR400J.0960.2064	CANSP13	11.0	0.0	75	11.5	1.0	99.4	103.5	1.0	99.4	
LPAR400J.0960.2064	CANSP22	3.6	0.1	100	15.4	0.2	49.6	46.2	1.1	10.8	

As seen from System: SP22

Hub Time: Wed, 01/10/2007 11:11 AM Server Available LPAR Clusters - IBM-PSQEU4XHHBD - JWINT

start Joseph... Microso... Microso... LPAR ... Microso... fomyer... Address 11:11 AM



View: Physical

- SP12
- SP13
- SP22
- SP23
- SYS
 - MVS Operating System
 - z/OS Management Console
 - LPAR400J:SYS:AVAILABILITY
 - Address Space Data for z/OS
 - Operations Status Data for z/OS
 - Paging Dataset Data for z/OS
 - LPAR Clusters Data for z/OS
 - USS Address Spaces and Processes

USS (Dubbed) Address Spaces

Sysplex Name	SMFID	SysName	ASID	A/S Name	A/S Type	Step Name	Userid	Service Class
LPAR400J	SYS	SYSG	0X000E	OMVS	STC	OMVS		SYSTEM
LPAR400J	SYS	SYSG	0X000E	BPX0INIT	STC	BPX0INIT		SYSTEM
LPAR400J	SYS	SYSG	0X000E	Q5G3CHIN	STC	Q5G3CHIN	Q5G3CHIN	STC
LPAR400J	SYS	SYSG	0X000E	OHGSDSST	STC	OHGSDSST	TDUSER	STC
LPAR400J	SYS	SYSG	0X000E	NET25	STC		DCUSER	SYSSSTC
LPAR400J	SYS	SYSG	0X000E	IMS9CCON			DCUSER	IMSMPRS
LPAR400J	SYS	SYSG	0X000E	TCPIPG			USER0	SYSSSTC
LPAR400J	SYS	SYSG	0X0094	S7SCG				STC
LPAR400J	SYS	SYSG	0X0097	S8HUB				STC
LPAR400J	SYS	SYSG	0X009B	\$FNSMV				OMVSJOBS
LPAR400J	SYS	SYSG	0X009D	CT				STCONLN
LPAR400J	SYS	SYSG	0X00A0	HZSPROC				STC

- Processes in the Address Space
- XE USS Overview
- Link Wizard...
- Link Anchor...

We can find more USS Performance information in XE

USS Processes

Sysplex Name	SMFID	SysName	Process Status	Process ID	Command Name
LPAR400J	SYS	SYSG	More Than One Open Task In Process	1	BPXPINPR
LPAR400J	SYS	SYSG	More Than One Open Task In Process	131074	BPEYINO
LPAR400J	SYS	SYSG	More Than One Open Task In Process	67239939	KLV
LPAR400J	SYS	SYSG	More Than One Open Task In Process	131076	ISTMGCEH
LPAR400J	SYS	SYSG	One Regular Task in One Process in Addr Space	16908293	KLV
LPAR400J	SYS	SYSG	Multiple Tasks In Process + Multiple Processes In Addr Spa...	50462726	EZBTMST
LPAR400J	SYS	SYSG	Multiple Tasks In Process + Multiple Processes In Addr Spa...	131080	EZBTCPIP
LPAR400J	SYS	SYSG	One Regular Task in One Process in Addr Space	67239945	KLV
LPAR400J	SYS	SYSG	More Than One Process In Addr Space	131082	EZBTSSL
LPAR400J	SYS	SYSG	More Than One Process In Addr Space	131083	EZBTMCTL
LPAR400J	SYS	SYSG	More Than One Process In Addr Space	131084	EZACFALG
LPAR400J	SYS	SYSG	More Than One Process In Addr Space	131085	EZASASUB
LPAR400J	SYS	SYSG	One Regular Task in One Process in Addr Space	131086	inetd
LPAR400J	SYS	SYSG	One Regular Task in One Process in Addr Space	131087	HZSTKSCH
LPAR400J	SYS	SYSG	One Regular Task in One Process in Addr Space	16908304	SOESERV



View: Physical

- DASD MVS Devices
- Enclave Information
- Enqueue and Reserve Summ...
- LPAR Clusters
- Operator Alerts
- Page Dataset Activity
- Real Storage
- System CPU Utilization
- System Paging Activity
- Tape Drives
- User Response Time
- WLM Service Class Resourc...
- z/OS UNIX System Services

Physical

Dubbed Address S... Page: 1 of 2

ASID	A/S Name	CPU Time%
0X000E	OMVS	0.00
0X0020	BPX0INIT	0.04
0X0023	Q5G3CHIN	0.00
0X0026	OHGSDSST	0.81
0X0027	NET25	0.00
0X0053	IMS9CCON	0.00
0X008B	TCPIPG	0.00
0X0094	S7SGC5	0.02
0X0097	S8HUB1	0.11
0X009B	\$FTPG1	0.00
0X009D	CICSR88L	0.00
0X00A0	HZSPROC	0.10

(Selected Attributes)

UNIX Processes Page: 1 of 3

Command Name	Jobname	UNIX Run Time%	Process Status
BPXPINPR	BPX0INIT	0.00	More Than One Open Task In Process
BPESYIN0	IMS9CCON	0.00	More Than One Open Task In Process
KLV	S8HUB1	0.00	More Than One Open Task In Process
ISTMGCEH	NET25	0.53	More Than One Open Task In Process
KLV	\$GNSMV	0.00	One Regular Task in One Process in Addr...
EZBTMST	TCPIPG	0.00	Multiple Tasks In Process + Multiple Proces...
EZBTCPIP	TCPIPG	0.00	Multiple Tasks In Process + Multiple Proces...
KLV	\$GNSON	0.00	One Regular Task in One Process in Addr...
EZBTSSL	TCPIPG	0.00	More Than One Process In Addr Space
EZBTMCTL	TCPIPG	0.00	More Than One Process In Addr Space
EZACFALG	TCPIPG	0.00	More Than One Process In Addr Space
EZASASUB	TCPIPG	0.00	More Than One Process In Addr Space

(Selected Attributes)

UNIX Kernel

Syscall Rate	CPU%	I/Os Rate	Number of Processes	Max Processes
			18	300

- Dubbed Address Spaces
- UNIX BPXPRMx Values
- UNIX Files
- UNIX Kernel
- UNIX Logged on Users
- UNIX Mounted File Systems
- UNIX Processes
- Link Wizard...
- Link Anchor...

Max Processes: 300
Used Processes%: 18

UNIX Logged-on Users

Login Name	Name	Login Time

(Selected Attributes)

UNIX Mounted File Systems Page: 1 of 2

Mount Point	File System Name	Mode	Status
/SP12/tmp	SP12/TMP	RDWR	Active
/SP13/tmp	SP13/TMP	RDWR	Active
/SYSL/tmp	SYSL/TMP	RDWR	Active
/SP22/tmp	SP22/TMP	RDWR	Active
/SYSG/tmp	SYSG/TMP	RDWR	Active
/SP11/tmp	SP11/TMP	RDWR	Active
/SP23/tmp	SP23/TMP	RDWR	Active
/SYSAT/tmp	SYSAT/TMP	RDWR	Active
/u	*AMD/u	RDWR	Active
/ohctst	OMVS.OHCTST.HFS	RDWR	Active
/u/bqian	OMVS.BQIAN.USER.DIR	RDWR	Active
/u/kzhan	OMVS.KZHAN.USER.DIR	RDWR	Active
/u/thacker	OMVS.THACKER.USER.DIR	RDWR	Active
/u/ktake	OMVS.KTAKE.USER.DIR	RDWR	Active

(Selected Attributes)

Many good workspaces to explore USS performance in XE

z/OS UNIX System Services Overview - IBM-PSQEU4XHHBD - JWINT

File Edit View Help

View: Physical

System CPU Utilization
System Paging Activity
Tape Drives
User Response Time
WLM Service Class Resource
z/OS UNIX System Services

z/OS Management Console
LPAR400J:SYS:AVAILABILITY
Address Space Data for z/C
Operations Status Data for z
Paging Dataset Data for z/OS
LPAR Clusters Data for z/OS
USS Address Spaces and P

Dubbed Address S... UNIX Processes

ASID	A/S Name	CPU Time%	Command Name	Jobname	UNIX Run Time%	Process Status
0X0005	OMVS	0.00	DDXINPR	DDXOINIT	0.00	More Than One Open Task In Process
0X0010	CHIN	0.00			0.00	More Than One Process In Addr Space
0X0023		0.00			0.20	More Than One Open Task In Process
0X0027	AT	91.50				One Regular Task in One Process in Addr!
0X002A	PG	0.00			0.00	Multiple Tasks In Process + Multiple Proces
0X002E	CHIN	0.00			0.00	More Than One Process In Addr Space
0X0030		0.00			0.00	One Regular Task in One Process in Addr!
0X0032	CICSTG04	0.00	SQESERV	SNMPQEG	0.01	One Regular Task in One Process in Addr!
0X004C	IMS9CCON	0.00	EZBTTSSL	TCPIPG	0.00	More Than One Process In Addr Space
0X0090	TCPIPG	0.00	EZBTMCTL	TCPIPG	0.00	More Than One Process In Addr Space
0X0092	Q5G2CHIN	0.00	EZACFALG	TCPIPG	0.00	More Than One Process In Addr Space
0X0095	\$NETVG	0.00	EZASASUB	TCPIPG	0.00	More Than One Process In Addr Space

High Process CPU user

UNIX Kernel

Syscall Rate	CPU%	I/Os Rate	Number of Processes	Max Processes
0.000	0.00	0.000	215	300

UNIX Logged-on Users

Login Name	Name	Login Time

UNIX Mounted File Systems

Mount Point	File System Name	Mode	Status
/SYS0/tmp	SYS0/TMP	RDWR	Active
/SP22/tmp	SP22/TMP	RDWR	Active
/SP12/tmp	SP12/TMP	RDWR	Active
/SP13/tmp	SP13/TMP	RDWR	Active
/SYSL/tmp	SYSL/TMP	RDWR	Active
/SP11/tmp	SP11/TMP	RDWR	Active
/SP23/tmp	SP23/TMP	RDWR	Active
/SYSA/tmp	SYSA/TMP	RDWR	Active
/u	*AMD/u	RDWR	Active
/u/mryan	OMVS.MRYAN.USER.DIR	RDWR	Active
/u/sneza3	OMVS.SNEZA3.USER.DIR	RDWR	Active
/SP11	OMVS.SP11.HFS	RDWR	Active
/SP11/etc	OMVS.SP11.ETC	RDWR	Active
/SP11/var	OMVS.SP11.VAR	RDWR	Active

Process Utilization

Process Utilization

Used %

71.66

0 80 160 240 320

Max Processes
Used Processes%

Hub Time: Wed, 01/17/2007 04:16 PM Server Available z/OS UNIX System Services Overview - IBM-PSQEU4XHHBD - JWINT

start Joseph H ... 5 Sameti... You and IB... z/OS UNI... Microsoft P... Address 4:16 PM

UNIX Processes - IBM-PSQEU4XHHBD - JWINT

File Edit View Help

View: Physical

UNIX Run Time %

Run Time

100
80
60
40
20
0

17235972
PID

(Excludes processes with run time less than 1%)

Page: 1 of 3

UNIX Processes

Page: 1 of 3

Out of Control Process

Name	ASID	Process ID	Parent Process ID	UNIX Run Time%	Process Status	Execution State	MVE Stat.	
INIT	0X0027	1	0	0.00	More Than One Open Task In Process	File system kernel wait	Normal	
CHIN	0X00A8	17235970	1	0.00	More Than One Process In Addr Space	Running not in kernel wait	Normal	
S	0X002A	458755	1	0.20	More Than One Open Task In Process	Running not in kernel wait	Normal	
AT	0X0023	17235972	1	87.63	One Regular Task in One Process in Addr Space	Running not in kernel wait	Normal	
PG	0X0090	50790405	1	0.00	Multiple Tasks In Process + Multiple Processes In Addr Spa...	Running not in kernel wait	Normal	
CHIN	0X00A8	50790406	1	0.00	More Than One Process In Addr Space	Running not in kernel wait	Normal	
INETD5	0X0030	458759	1	0.00	One Regular Task in One Process in Addr Space	File system kernel wait	Normal	
SQESERV	SNMPQEG	0X00A5	17235976	1	0.00	One Regular Task in One Process in Addr Space	File system kernel wait	Swapped
EZBTTSSL	TCPIPG	0X0090	458761	1	0.00	More Than One Process In Addr Space	Running not in kernel wait	Normal
EZBTMCTL	TCPIPG	0X0090	458762	1	0.00	More Than One Process In Addr Space	Running not in kernel wait	Normal
EZACFALG	TCPIPG	0X0090	458763	1	0.00	More Than One Process In Addr Space	File system kernel wait	Normal
EZASASUB	TCPIPG	0X0090	458764	1	0.00	More Than One Process In Addr Space	File system kernel wait	Normal
EZBTTMST	TCPIPG	0X0090	458765	1	0.00	Multiple Tasks In Process + Multiple Processes In Addr Spa...	Running not in kernel wait	Normal

Hub Time: Wed, 01/17/2007 04:17 PM

Server Available

UNIX Processes - IBM-PSQEU4XHHBD - JWINT

start

Joseph H ...

5 Sameti...

You and IB...

UNIX Proc...

Microsoft P...

Address

4:17 PM

UNIX Threads - IBM-PSQEU4XHHBD - JWINT

View: Physical

UNIX Threads for PID 17235972

Thread ID	Thread Sequence	UNIX Run Time	UNIX Run Time%	Process ID	Process ID Hex	ASID	Weight
127ac91000000000	0	241,057.328	89.84	17235972	0x01070004	0X0023	Normal

Thread ID of Process – LOOK AT THE CPU USED !!

Hub Time: Wed, 01/17/2007 04:18 PM | Server Available | UNIX Threads - IBM-PSQEU4XHHBD - JWINT

start | Joseph H ... | 5 Sameti... | You and IB... | UNIX Thre... | Microsoft P... | Address | 4:18 PM

UNIX Processes - IBM-PSQEU4XHHBD - JWINT

File Edit View Help

View: Physical

- DRSD MVS
- DASD MVS Devices
- Enclave Information
- Enqueue and Reserve Summ
- LPAR Clusters
- Operator Alerts
- Page Dataset Activity
- Real Storage
- System CPU Utilization
- System Paging Activity
- Tape Drives
- User Response Time
- WLM Service Class Resourc
- z/OS UNIX System Services

UNIX Run Time %

Run Time

100
80
60
40
20
0

17235972
PID

(Excludes processes with run time less than 1%)

UNIX Processes for ASID 23 (RMFGAT)

Process Group	Foreground Process Group	Effective Userid	Real Userid	Saved Set Userid	Effective User	Real User	Saved Set User	Effective Group ID	Real Group ID	Saved Set Group ID	Terminal Device	Total Size	User CPU Time	System CPU Time
17235972	17235972	0	0	0	DCUSER	DCUSER	DCUSER	0	0	0		7163904	181,192.38	60,397.45

Physical

Was a LOOPER and we cancelled it.

Hub Time: Wed, 01/17/2007 04:20 PM Server Available UNIX Processes - IBM-PSQEU4XHHBD - JWINT

start Joseph H ... 5 Sameti... You and IB... UNIX Proc... Microsoft P... Address 4:20 PM

Summary

- z/OS Systems Management
 - ▶ New Face on z/OS
- Tivoli OMEGAMON XE on z/OS 4.1.0
 - ▶ What is new in XE on z/OS 4.1.0
 - ▶ DWL - OMEGAMON z/OS
 - ▶ Problem Solving with XE
- zMC use with Tivoli OMEGAMON XE on z/OS 4.1.0
 - ▶ What is zMC?
 - ▶ DWL to XE
 - ▶ Using zMC and OMEGAMON XE together

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