



Tivoli for System z

IBM Software

PCTY2010



Pulse Comes to You

Optimizing the World's Infrastructure

10 de Junio de 2010, Madrid



Monitorización

IBM Software

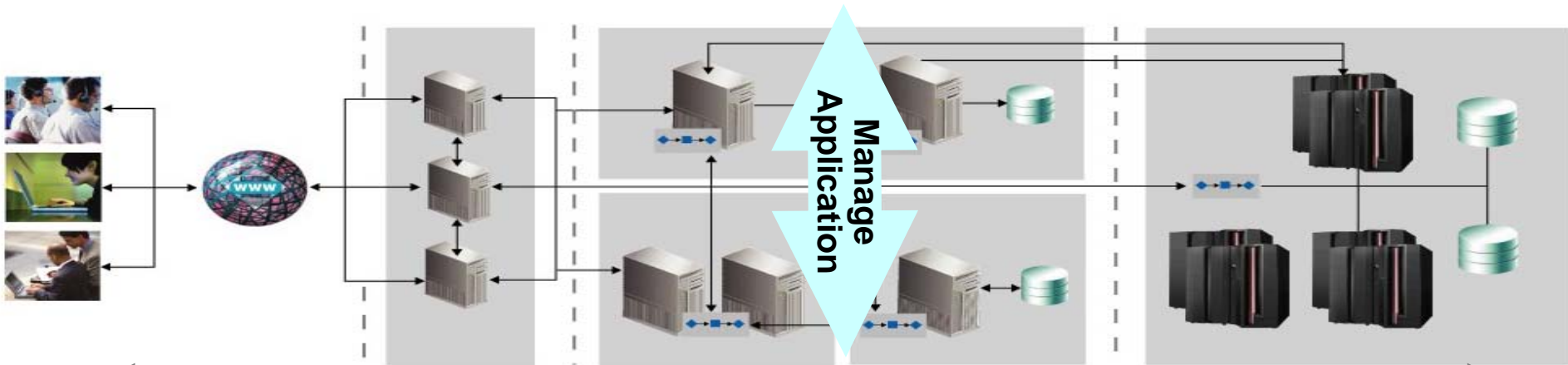
PCTY2010 
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ITCAM Solution Portfolio

Delivering high-performing composite applications.

Analyze and Measure Transactions & Services



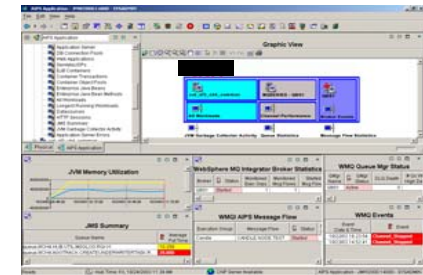
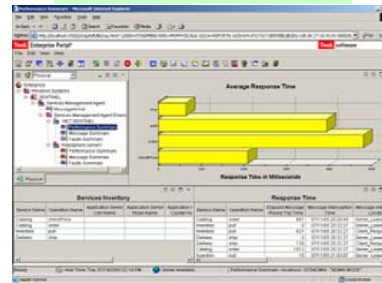
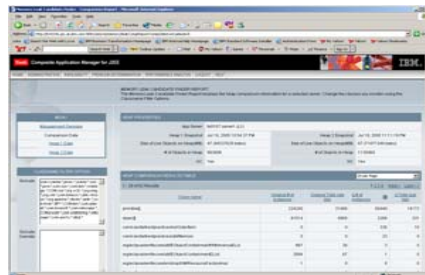
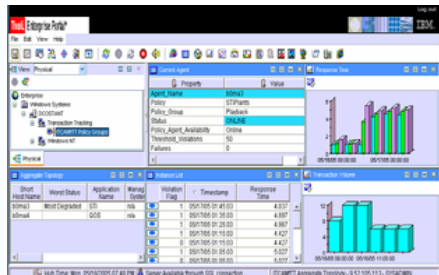
Monitor Infrastructure

ITCAM for Transactions

ITCAM for Application Diagnostics

ITCAM for SOA

OMEGAMON XE for Messaging



OMEGAMON XE for IMS – Dynamic Workspace Link

Global Lock Conflicts Table View - IBM-93CF507EC63 - SYSADMIN *ADMIN MODE*

View: Physical

Global Lock Conflicts

Global Lock Rates

Lock Status	Token	DB/Area Name	IMS ID	MVS ID	Jobname	PSBNAME	Transaction Name	Region Type	Region Status	Lock Elapsed Time	DCB Number	Lock Intent	Elapsed Time Syncpoint	Locks Held	Database Updates
LockOwner	AF2392E7	DI21PART	I91P	SP22	IMSLK9P	DFHSAM04		BMP	EX_DRGN	00:25:23	01	Update	00:24:13	83	289
LockWaiter	AF2392E7	DI21PART	I91P	SP22	IMSLK9P2	DFHSAM04		BMP	WT_IRLM	00:25:19	01	Update	00:24:09	1	0
LockWaiter	AF2392E7	DI21PART	I91P	SP22	CICSTR	DFHSAM05	WD80	DBC	WT_IRLM	00:13:52	01	Share	00:13:14	1	0
LockWaiter	AF2392E7	DI21PART	I91P	SP22	CICS22RS	DFHSAM05	WD80	DBC	WT_IRLM	00:03:50	01	Share	00:03:40	1	0

Node Identifier:

Hub Time: Fri, 05/19/2006 02:37 PM Server Available Global Lock Conflicts Table View - IBM-93CF507EC63 - SYSADMIN *ADMIN MODE*

start A. S. M. L. y. C. m. D. C. D. 2:37 PM

OMEGAMON XE for IMS – Dynamic Workspace Link

DBCTL Thread Detail (IMS) - IBM-93CF507EC63 - SYSADMIN *ADMIN MODE*

View: Physical

Elapsed Times

Enqueues and Dequeues

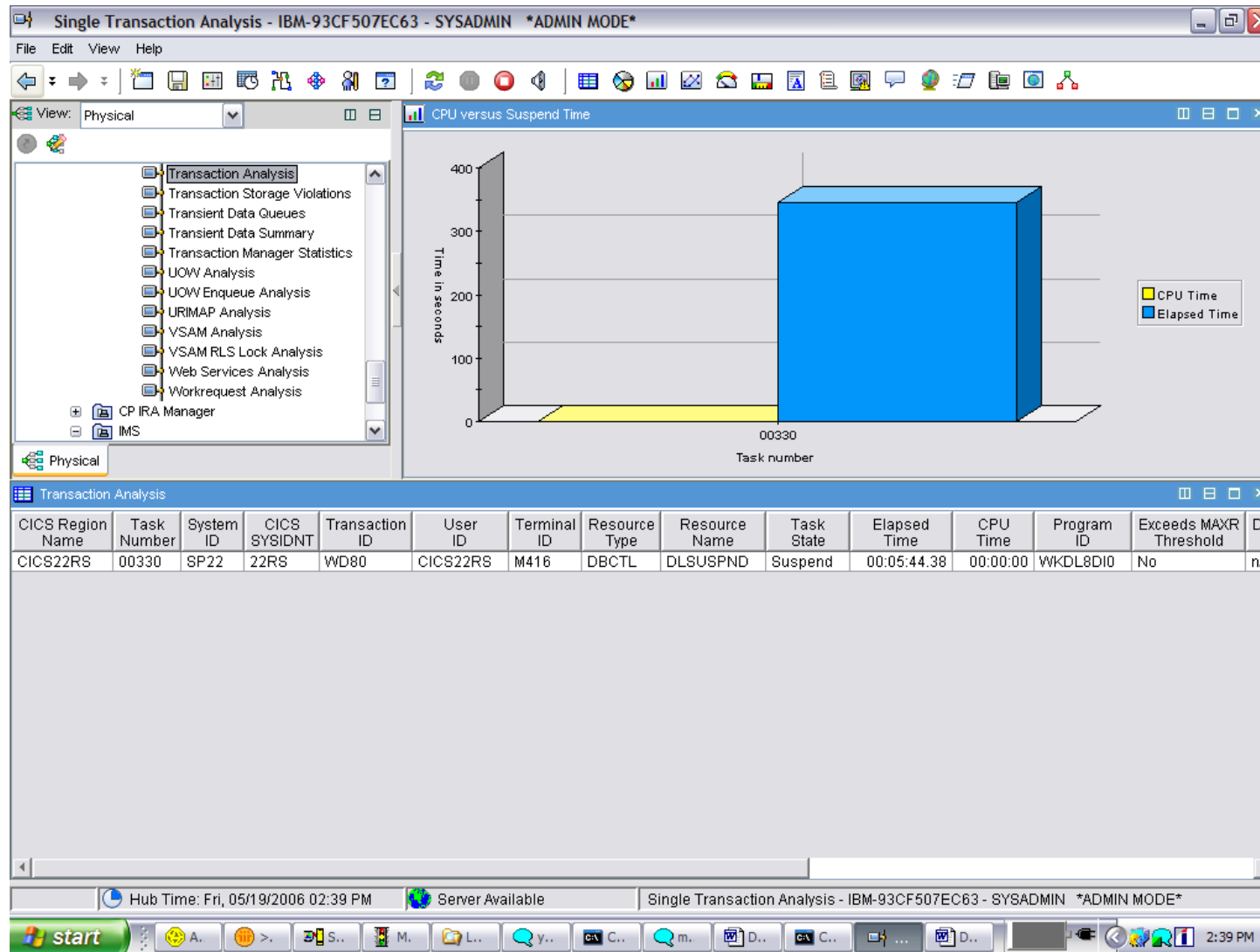
DBCTL Detailed Thread Activity (IMS)

Thread ID	Region ID	PSB Name	Thread State	Thread Status	CICS Jobname	CICS Transaction ID	CICS Task Number	CICS Terminal ID	Database I/O Count	DLI Call Count	Elapsed Thread Time	Recovery Token	Elapsed Wait Time Poolspace	Elk
CICS22RS	1	DFHRSAM05	Active	Wait-IRLM	CICS22RS	WD80	00330	M416	0	1	307	BED3B2F864600A68	0.000000	0.00

Hub Time: Fri, 05/19/2006 02:38 PM Server Available DBCTL Thread Detail (IMS) - IBM-93CF507EC63 - SYSADMIN *ADMIN MODE*

start A. S. M. L. y. C. m. D. C. ... D. 2:38 PM

OMEGAMON XE for IMS – Dynamic Workspace Link



OMEGAMON XE for CICS – Transaction Analysis

Transaction Analysis - Microsoft Internet Explorer

Address: http://dem17lnx.democentral.ibm.com:1920///cnp/kdh/lib/cnp.html?-1021A=REPORT&-5001=MOPHYSICAL&-12006=Carlos%20Yanez&-10105=zkcpc.Transaction_Analysis:420&-2400=p@MVSA.CICSAOR18

Tivoli Enterprise Portal Welcome Carlos Yanez Log out IBM

Transaction Processor Utilization

Task Number	CPU Seconds
00006	~10
00007	~120
00009	~120
00023	~10
00025	~10
00028	~10
00031	~10
00035	~10
00049	~20
00050	~10
00051	~10
00057	~240
00059	~10
00060	~10

System ID	CICS Region Name	CICS SYSIDNT	Transaction ID	User ID	Terminal ID	Task Number	Resource Type	Resource Name	Task State	Elapsed Time	CPU Time	Program ID	Exceeds MAXR Threshold	DB2 Correlation Identifier	PSB Name	Recovery Token	Wait Type
MVSA	CICSAOR1	C22A	CKTI	SYSSTC	n/a	00060	MQSeries	GETWAIT	Suspend	5 Days	00:00:00,02	DFHMGTSK	No	n/a	n/a	C5FF33E35C473887	MQSeries
MVSA	CICSAOR1	C22A	COIE	SYSSTC	n/a	00059	USERWAIT	EMSTATUS	Suspend	5 Days	00:03:55,46	EYU9XLOP	No	n/a	n/a	C5FF33B4C042BD88	TaskCntl
MVSA	CICSAOR1	C22A	COIO	SYSSTC	n/a	00057	USERWAIT	WorkWait	Suspend	5 Days	00:00:00,06	EYU9XLOP	No	n/a	n/a	C5FF33B27911B183	TaskCntl
MVSA	CICSAOR1	C22A	CSNE	n/a	n/a	00051	ZC	DFHZNAC1	Suspend	5 Days	00:00:00,85	DFHZNAC	No	n/a	n/a	C60641CF9C5BC683	Terminal
MVSA	CICSAOR1	C22A	CSKL	SYSSTC	n/a	00050	USERWAIT	TCPIP	Suspend	5 Days	00:00:17,58	EZACIC02	No	n/a	n/a	C5FF33B1C01B9007	TaskCntl
MVSA	CICSAOR1	C22A	CKAM	SYSSTC	n/a	00049			Suspend	5 Days	00:00:00,14	DFHMQMON	No	n/a	n/a	C5FF33E35C402087	
MVSA	CICSAOR1	C22A	CISM	n/a	n/a	00045	IS_SCHED	IS_SCHDQ	Suspend	5 Days	00:00:00	DFHISRSP	No	n/a	n/a	C5FF33B14502E08C	
MVSA	CICSAOR1	C22A	CISE	n/a	n/a	00044	IS_ERROR	IS_ERROQ	Suspend	5 Days	00:00:00	DFHISEMP	No	n/a	n/a	C5FF33B14505608C	
MVSA	CICSAOR1	C22A	CISR	n/a	n/a	00043	IS_INPUT	IS_PROCG	Suspend	5 Days	00:00:00	DFHISRPP	No	n/a	n/a	C5FF33B14500618C	
MVSA	CICSAOR1	C22A	CSHQ	n/a	n/a	00035	SHSYSTEM		Suspend	5 Days	00:00:00,11	DFHSHSY	No	n/a	n/a	C5FF33B13E3F2B08	
MVSA	CICSAOR1	C22A	CEX2	n/a	n/a	00031	USERWAIT	CDB2TIME	Suspend	5 Days	00:00:08,66	DFHD2EX2	No	n/a	n/a	C5FF33B0B05C5E00	Database
MVSA	CICSAOR1	C22A	CONL	SYSSTC	n/a	00028			Suspend	5 Days	00:00:00,95	EYU9XLEV	No	n/a	n/a	C5FF33B038498807	

Hub Time: lun, 05/24/2010 05:44 AM Server Available Transaction Analysis - dem17lnx.democentral.ibm.com - Carlos Yanez

Applet CMWApplet started Local intranet

OMEGAMON XE for CICS – Bottleneck Analysis

Bottleneck Analysis - Microsoft Internet Explorer

Address: [http://9.212.143.112:1920///cnp/kdh/lib/cnp.html?...](http://9.212.143.112:1920///cnp/kdh/lib/cnp.html?-1021A=REPORT&-5001=MOPHYSICAL&-10105=zkcpc.Bottleneck_Analysis&-2400=p@ZT01.CICSDM25&-1020=ZT01.CICSDM25@zkcpc.Bottleneck)

Tivoli Enterprise Portal Welcome SUTV201

Navigator View: Physical

- ZT01.CICSDM25
 - Automatic Initiate Descriptors
 - Bottleneck Analysis**
 - Business Transaction Services Analysis
 - Connections Analysis
 - Connections Summary
 - DB2 Summary
 - DB2 Task Activity
 - DBCTL Summary
 - Dispatcher Summary
 - Dump Analysis
 - Enqueue Analysis
 - Enterprise Java Analysis
 - Exit Program Analysis

CICS Wait Reason Distribution

Bottleneck Analysis

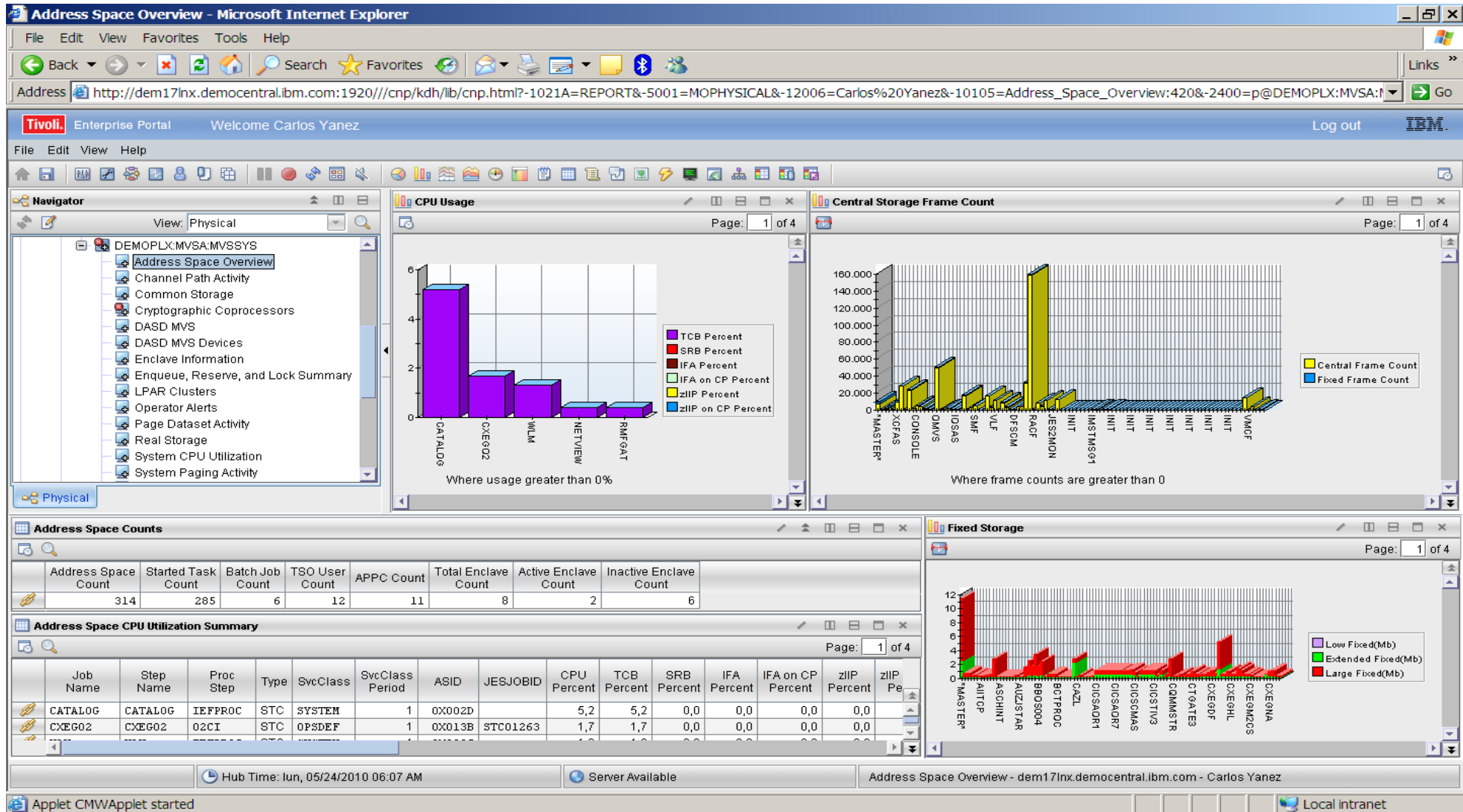
Resource Type	Resource Name	Resource Subtype	Summary Short Term Percentage	Detailed Short Term Percentage	Summary Long Term Percentage	Detailed Long Term Percentage	Wait Type	Issuing Module	Dispatcher Call	Task Type	Wait Reason Description	Short Term Sample Count	Short Term Elapsed time	Short Term Interval	Long Term Sample Count
DSTSKDEF	(varies)	(none)	13	13	13	13		UNKNOWN	SUSPEND	User	DS Task define	2160	00:08:57	00:10:00	4560
EKCWAIT	SINGLE	(none)	13	13	13	13	TaskCntl	DFHEKC	WAITOLDW	User	KC Extended wait	2160	00:08:57	00:10:00	4560
IN_DB2	(varies)	(none)	13	13	13	13		USERPROG	RUNNING	Both	DS Task dispatched	2160	00:08:57	00:10:00	4560
OPEN_TCB	(varies)	(none)	13	13	13	13		USERPROG	RUNNING	Both	DS Task dispatched	2160	00:08:57	00:10:00	4560
smisyre	smva_ecb	(none)	13	13	13	13		DFHMSY	WAIT_MVS	System	SM Wait for work	2160	00:08:57	00:10:00	4560
SODOMAIN	SO_NOWOR	(none)	13	13	13	13	Socket	DFHSOL	SUSPEND	System	SO Waiting for work	2160	00:08:57	00:10:00	4560
USERWAIT	TOTAL*	(none)	25	0	25	0	TaskCntl	DFHEIQSK	WAITMVS	User	KC User ECB wait	2160	00:08:57	00:10:00	4560
USERWAIT	CLEVSXWX	(none)	0	13	0	13	TaskCntl	DFHEIQSK	WAITMVS	User	KC User ECB wait	2160	00:08:57	00:10:00	4560
USERWAIT	EMSTATUS	(none)	0	13	0	13	TaskCntl	DFHEIQSK	WAITMVS	User	KC User ECB wait	2160	00:08:57	00:10:00	4560

Hub Time: mar, 07/01/2008 12:33 PM Server Available Bottleneck Analysis - 9.212.143.112 - SUTV201

Applet CMWApplet started

Start Infoprint ... Carlos Ya... C:\DATO... Bottlene... Acrobat R... AT&T Net... IBM Perso... Session A ... 2 Micro... Untitled - ... 100% 13:38 martes

OMEGAMON XE for z/OS – Address Space Overview



OMEGAMON XE for z/OS – USS Overview

z/OS UNIX System Services Overview - Microsoft Internet Explorer

Address: http://dem17lnx.democentral.ibm.com:1920///cnp/kdh/lib/cnp.html?~1021A=REPORT&-5001=MOPHYSICAL&-12006=Carlos%20Yanez&-10105=ZOS_UNDX_Sys_Serv_Overview:420&-2400=p@DEMOPLX:~

Tivoli Enterprise Portal Welcome Carlos Yanez Log out IBM

File Edit View Help

Navigator View: Physical

- Page Dataset Activity
- Real Storage
- System CPU Utilization
- System Paging Activity
- Tape Drives
- User Response Time
- WLM Service Class Resources
- z/OS UNIX System Services Overview
- NetView Agent

Physical

Dubbed Address Spaces Page: 1 of 2

ASID	A/S Name	CPU Time%
0X001A	CEA	0,00
0X001F	DD80363Z	0,00
0X0026	DFSCM	0,00
0X0027	HZSPROC	0,03
0X0028	VTAM	0,25
0X0029	TCPIP	0,04
0X002A	BB05002S	0,00

(Selected Attributes)

UNIX Processes Page: 1 of 4

Command Name	Jobname	UNIX Run Time%	Process Status	Exec St
BPXPINPR	BPX0INIT	0,00	More Than One Open Task In Process	Running not in kern
EZBTCPIP	TCPIP	0,01	Multiple Tasks In Process + Multiple Processes In Addr Spa...	File system kernel
			One Regular Task in One Process in Addr Space	Process terminate
ISTMGCEH	VTAM	0,01	One Regular Task in One Process in Addr Space	File system kernel
IOECMINI	DFSCM	0,00	One Regular Task in One Process in Addr Space	Running not in kern
cron	CROMD1	0,00	One Regular Task in One Process in Addr Space	Other kernel wait
EZACFALG	TCPIP	0,02	More Than One Process In Addr Space	File system kernel

(Selected Attributes)

UNIX Kernel

Syscall Rate	CPU%	I/Os Rate	Number of Processes	Max Processes	Used Processes%	USock Curr Pct
0,000	0,00	0,129	331	512	64,64	3,21

(Selected Attributes)

Process Utilization

UNIX Logged-on Users

Login Name	Name	Login Time
DDS0363	GEORGE BOGNER	05/21/10 17:18:17
DNET726	CARLOS YANEZ	05/24/10 06:10:26

(Selected Attributes)

UNIX Mounted File Systems Page: 1 of 2

Mount Point	File System Name	Mode	Status
/V1R11/usr/lpp/zosExtensions/V2005	RATRCC.V2005A.HFS	RDWR	Active
/DEMOMVS/CandleHome	CANDLET.WASAGENT.HFS	RDWR	Active
/V1R11/usr/lpp/ing	SA390.V3R2.HFS	RDWR	Active
/V1R11/usr/lpp/IMSICO	IMSCON.V2R2.HFS	RDWR	Active
/V1R11/usr/lpp/ims/ico101	IMS.V10R1.ICO.HFS	RDWR	Active
/V1R11/usr/lpp/ims/imsjava10	IMS.V10R1.HFS	RDWR	Active
/V1R11/usr/lpp/cqmvr2r2	DB2QM.V2R2.HFS	RDWR	Active
/V1R11/usr/lpp/egfv1r1	DB2GROUP.V1R1.HFS	RDWR	Active
/V1R11/usr/lpp/grivr2r2	DB2DBG.V2R2.HFS	RDWR	Active
/V1R11/usr/lpp/ahvr2r1	DB2DAE.V2R1.HFS	RDWR	Active
/V1R11/usr/lpp/cicstg/v7r1	CICSTG.V7R1.HFS	RDWR	Active
/V1R11/usr/lpp/cicsts/cicsts.v4r1	CICSTS.V4R1.ZFS	RDWR	Active
/V1R11/usr/lpp/cicsts/cicsts.v3r2	CICSTS.V3R2.HFS	RDWR	Active
/V1R11/usr/lpp/ixm	XML.HFS	RDWR	Active
/V1R11/usr/lpp/jcct4v3	DB2.V9R1.JCCT4V3.HFS	RDWR	Active

(Selected Attributes)

Hub Time: Sun, 05/24/2010 06:10 AM Server Available z/OS UNIX System Services Overview - dem17lnx.democentral.ibm.com - Carlos Yanez

Applet CMWApplet started Local intranet

OMEGAMON XE for DB2 – Thread Activity

Thread Activity by Plan - Microsoft Internet Explorer

Address: http://dem17lnx.democentral.ibm.com:1920///cnp/kdh/lb/cnp.html?-1021A=REPORT&-5001=MOPHYSICAL&-12006=Carlos%20Yanez&-10105=ZDB2_0000_TOP_TEN_CPU:420&-2400=p@DB1S:MVSA:DE

Tivoli Enterprise Portal Welcome Carlos Yanez Log out IBM

File Edit View Help

Navigator View: Physical

- z/OS
 - MVSA
 - Advanced Audit for DFSMSshm
 - Catalog Management
 - CICS
 - DB2
 - DB1S:MVSA:DB2
 - Thread Activity
 - Storage Consumption
 - System Status
 - Detailed Thread Exception
 - Lock Conflicts
 - Subsystem Management
 - Log Manager

Physical

Top Ten In-DB2 CPU Time Threads Page: 1 of 3

Top Ten In-DB2 Time Threads Page: 1 of 3

Top Ten In-DB2 CP CPU Time Threads Page: 1 of 3

	Elapsed Time	Plan	Package DBRM (Unicode)	CP CPU Rate	Thread Status	In DB2 CP CPU Time	In DB2 Time	Wait Time	Get Page	Updates	Commits	Authorization ID (Unicode)	Job Name	Interval Start
	5 Days	DB2PM	DGO@PC1	0,0	NOT-IN-DB2	00:09:39,322	00:26:33,456	00:16:38,778	25210034	10507796	574678	DB2PM	CXEGO2	05/24/10 07:24:46
	3 Days	KO2PLAN	FPE@WR2C	0,0	NOT-IN-DB2	00:01:40,354	01:23:22,825	01:21:44,673	97735	27876	13929	DB2PM	CXEGO2	05/24/10 07:24:46
	5 Days	?RRSAF	DSNA6DB2	0,0	NOT-IN-DB2	00:00:12,359	00:00:33,129	00:00:18,500	49518	0	8248	OSCADMIN	DB1SADMT	05/24/10 07:24:46
	5 Days	ADHPLAN3	ADHAAFLR	0,0	NOT-IN-DB2	00:00:08,403	00:00:41,374	00:00:31,971	909928	0	14	AEAGENT	ADHADB1S	05/24/10 07:24:46
	5 Days	ADHPLAN3	ADHAAAIS	0,0	NOT-IN-DB2	00:00:05,110	00:00:18,956	00:00:13,820	16533	6209	3594	AEAGENT	ADHADB1S	05/24/10 07:24:46
	5 Days	ADHPLAN3	ADHASSCS	0,0	NOT-IN-DB2	00:00:05,092	00:00:23,738	00:00:18,362	159411	607	2991	AEAGENT	ADHADB1S	05/24/10 07:24:46
	5 Days	ADHPLAN3	ADHMSUMT	0,0	NOT-IN-DB2	00:00:04,321	01:00:13,014	00:23:58,141	67967	3079	557	KLAYLO	ADHSRV2	05/24/10 07:24:46
	5 Days	ADHPLAN3	ADHMDLCP	0,0	NOT-IN-DB2	00:00:01,694	00:00:02,449	00:00:00,610	126754	102	108	AEAGENT	ADHADB1S	05/24/10 07:24:46
	5 Days	ADHPLAN1		0,0	NOT-IN-DB2	00:00:01,164	00:01:05,816	00:01:04,725	0	0	0	AEAGENT	ADHADB1S	05/24/10 07:24:46
	5 Days	ADHPLAN3	ADHMARM	0,0	NOT-IN-DB2	00:00:00,567	00:00:02,279	00:00:01,592	17051	12	59	KLAYLO	ADHSRV2	05/24/10 07:24:46

Hub Time: Sun, 05/24/2010 07:24 AM Server Available Thread Activity by Plan - dem17lnx.democentral.ibm.com - Carlos Yanez

Applet CMWApplet started Local intranet

OMEGAMON XE for DB2 – Buffer Pool management

Buffer Pool Management - Microsoft Internet Explorer

Address: http://dem17lnx.democentral.ibm.com:1920///cnp/kdh/lib/cnp.html?~1021A=REPORT&-5001=MOPHYSICAL&-12006=Carlos%20Yanez&-10105=zDB2_060_SRM_BPM:420&-2400=p@DSNA:MVSA:DB2&-10

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View: Physical

Buffer Pool Rates

Buffer Pool Management

	Time Stamp	Interval Time	Pool ID	VP Size	Hiperpool Size	Allocated Pages	Pages In Use	Utilization	GetPage Rate	Read I/O Rate	Prefetch Request Rate	Write I/O Rate
	05/24/10 07:33:26	30	BP0	12000	0	12000	0	0,0	0,1	0	0,0	0,0
	05/24/10 07:33:26	30	BP1	4000	0	4000	3	0,0	0,1	0	0,0	0,0
	05/24/10 07:33:26	30	BP2	8000	0	8000	3	0,0	0,2	0	0,0	0,0
	05/24/10 07:33:26	30	BP3	8000	0	0	0	0,0	0,0	0	0,0	0,0
	05/24/10 07:33:26	30	BP4	2000	0	0	0	0,0	0,0	0	0,0	0,0
	05/24/10 07:33:26	30	BP5	2000	0	0	0	0,0	0,0	0	0,0	0,0
	05/24/10 07:33:26	30	BP6	2000	0	0	0	0,0	0,0	0	0,0	0,0
	05/24/10 07:33:26	30	BP7	4000	0	0	0	0,0	0,0	0	0,0	0,0
	05/24/10 07:33:26	30	BP8	4000	0	0	0	0,0	0,0	0	0,0	0,0
	05/24/10 07:33:26	30	BP16	4	0	0	0	0,0	0,0	0	0,0	0,0
	05/24/10 07:33:26	30	BP32K	2000	0	2000	87	4,3	0,2	0	0,0	0,0
	05/24/10 07:33:26	30	BP8K0	5000	0	5000	0	0,0	0,0	0	0,0	0,0
	05/24/10 07:33:26	30	BP16K0	2000	0	2000	0	0,0	0,0	0	0,0	0,0
	05/24/10 07:33:26	30	BP16K1	2000	0	0	0	0,0	0,0	0	0,0	0,0

Hub Time: lun, 05/24/2010 07:32 AM Server Available Buffer Pool Management - dem17lnx.democentral.ibm.com - Carlos Yanez

Applet CMWApplet started Local intranet

OMEGAMON XE for MFN – TCP/IP Connections

Connections - Microsoft Internet Explorer

Address <http://dem17lnx.democentral.ibm.com:1920///cnp/kdh/lib/cnp.html?~1021A=REPORT&-5001=MOPHYSICAL&-12006=Carlos%20Yanez&-10105=KN3TCN00:4201&-2400=p@TCPIP:MVSA&-10114=20FD6D>

Tivoli Enterprise Portal Welcome Carlos Yanez Log out IBM

File Edit View Help

Navigator View: Physical

- TCP/IP
 - TCP/IP:MVSA
 - Address Space
 - Applications
 - Connections**
 - Gateways and Devices
 - FTP
 - Interfaces
 - IP Filters
 - IPSec Tunnels
 - OSA

Physical

Current Byte Rate >= 2048

Current Datagram Rate > 0

Current Retransmits > 0

Response Time > 0.2 Seconds

Connections Summary Table

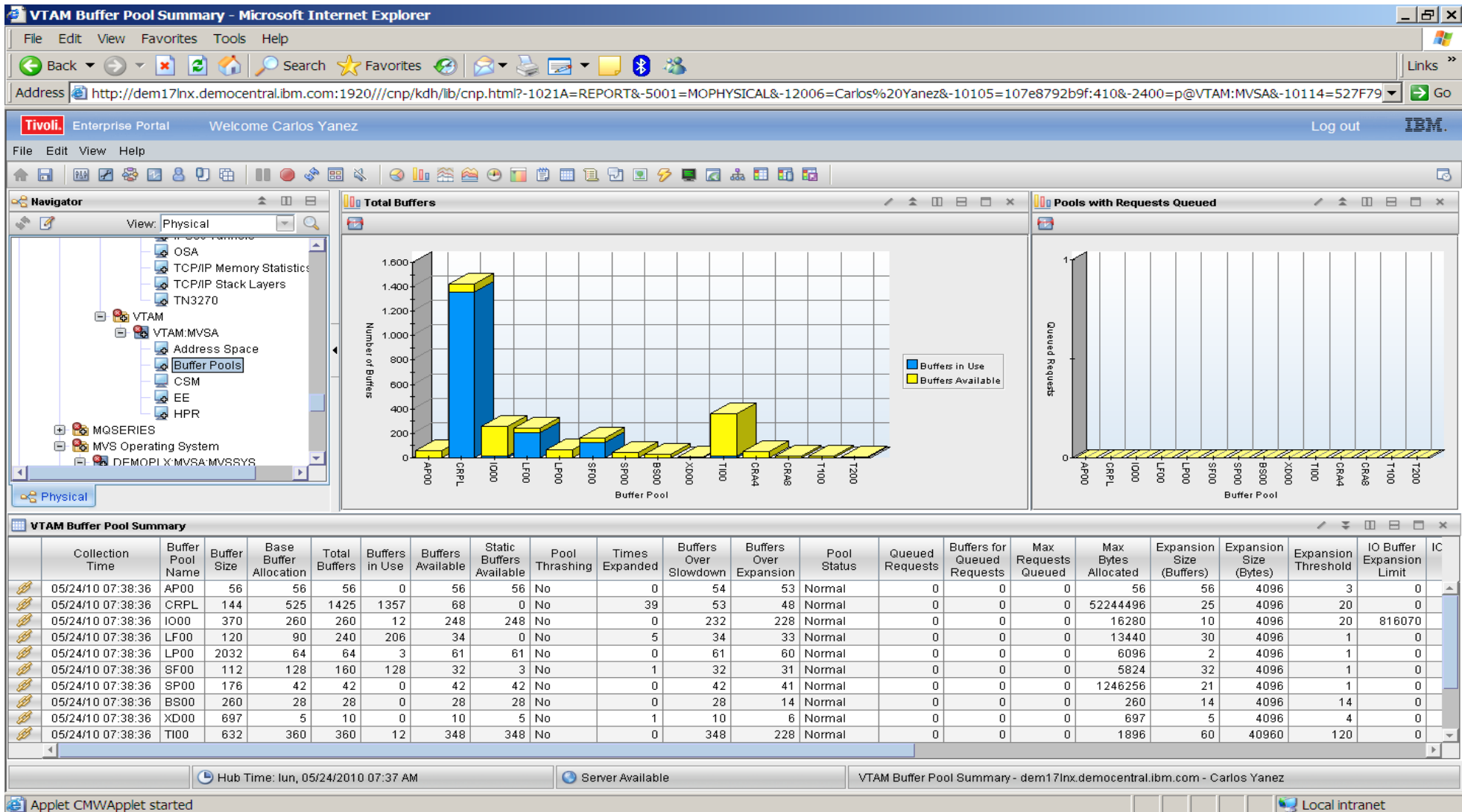
	Collection Time	Application Name	Connection Type	Local IP Address	Local Port	For IP Ac
	05/24/10 07:33:28	CQMCAESV	TCP_Connection	9.39.68.147	3444	9.39.68.147
	05/24/10 07:33:28	CXEGRH	TCP_Connection	127.0.0.1	2095	127.0.0.1
	05/24/10 07:33:28	DDS1256	TCP_Connection	9.39.68.147	20	9.181.147.20
	05/24/10 07:33:28	CXEGRA	TCP_Connection	127.0.0.1	3621	127.0.0.1
	05/24/10 07:33:28	CXEGM2	TCP_Connection	9.39.68.12	36727	9.39.68.12
	05/24/10 07:33:28	CXEGDSST	TCP_Connection	9.39.68.12	9002	9.39.68.12
	05/24/10 07:33:28	CXEGRA	TCP_Connection	127.0.0.1	3624	127.0.0.1
	05/24/10 07:33:28	CQMCAESV	TCP_Connection	9.39.68.147	1041	9.39.68.147
	05/24/10 07:33:28	TN3270	TCP_Connection	9.39.68.147	23	9.125.147.23
	05/24/10 07:33:28	TN3270	TCP_Connection	9.39.68.147	23	9.145.147.23
	05/24/10 07:33:28	CXEGDSST	TCP_Connection	9.39.68.147	9002	9.39.68.147
	05/24/10 07:33:28	NETVIEW	TCP_Connection	9.39.68.147	4022	9.39.68.147

Hub Time: Sun, 05/24/2010 07:35 AM Server Available

Connections - dem17lnx.democentral.ibm.com - Carlos Yanez

Applet CMWApplet started Local intranet

OMEGAMON XE for MFN – VTAM Buffer Pools





Gestión del Rendimiento

IBM Software

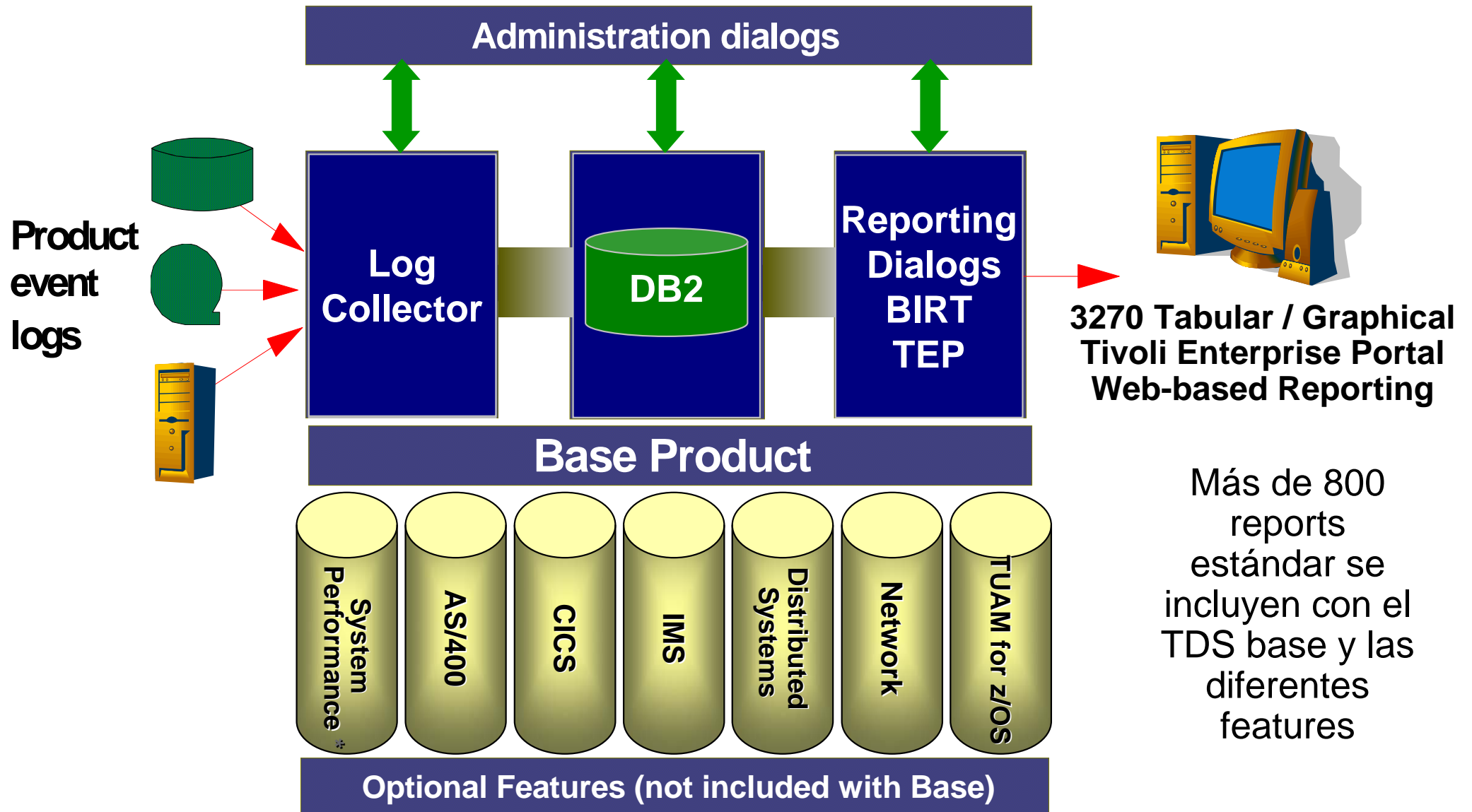
PCTY2010



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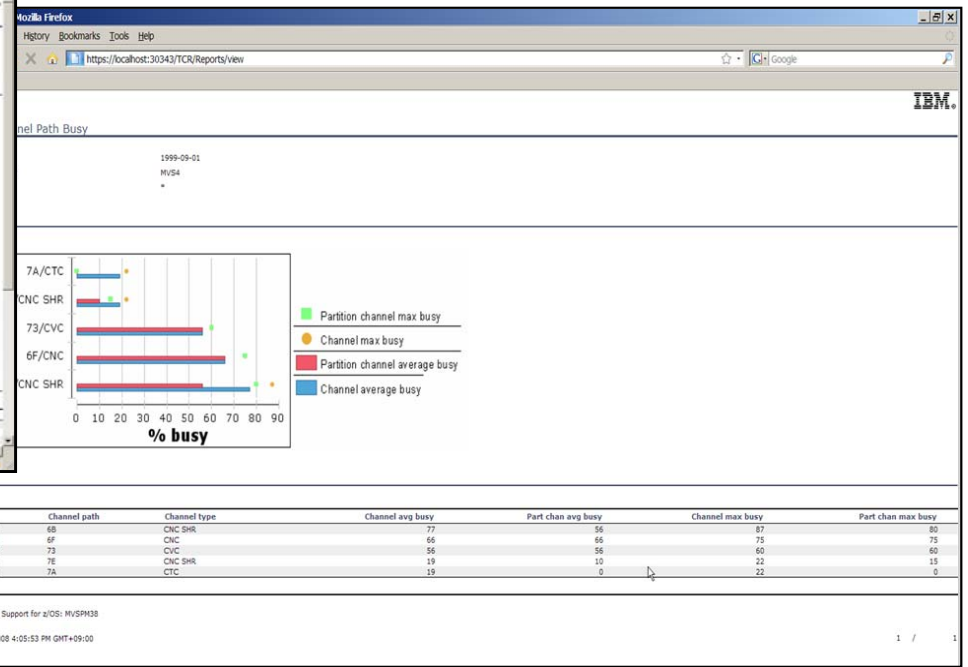
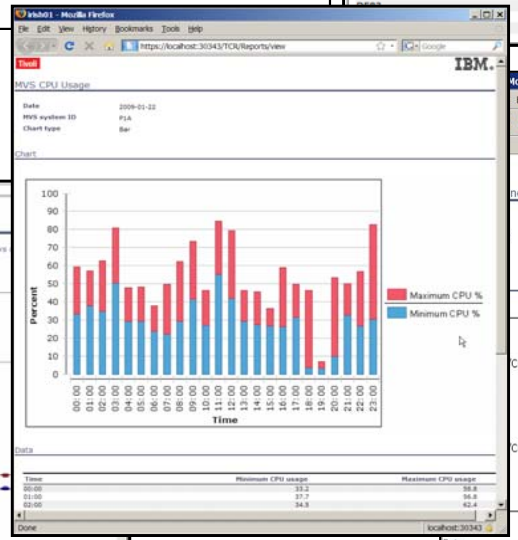
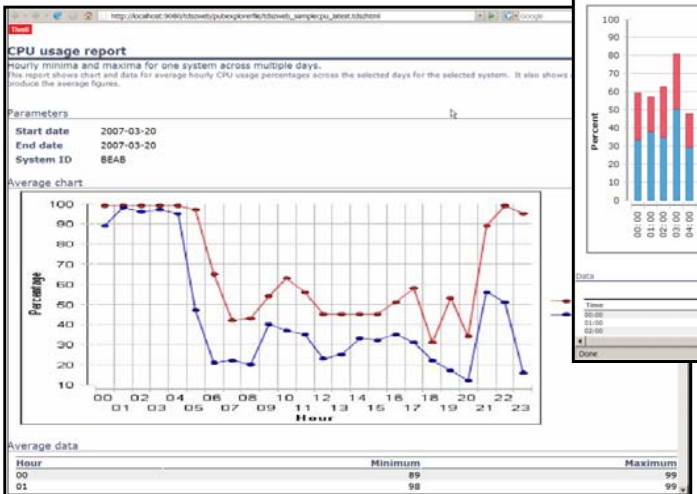
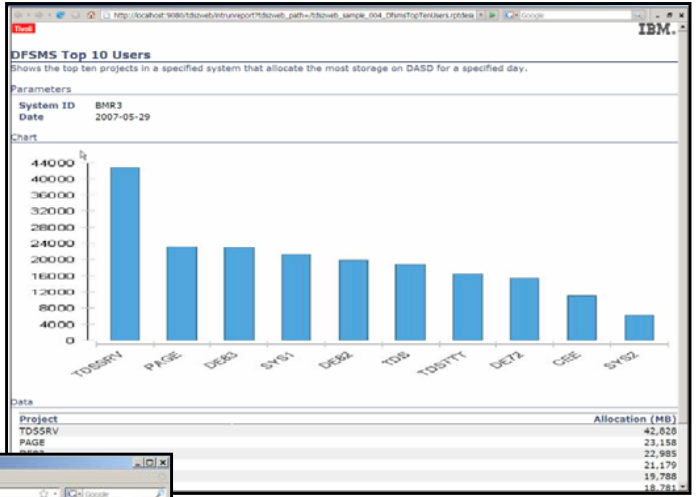
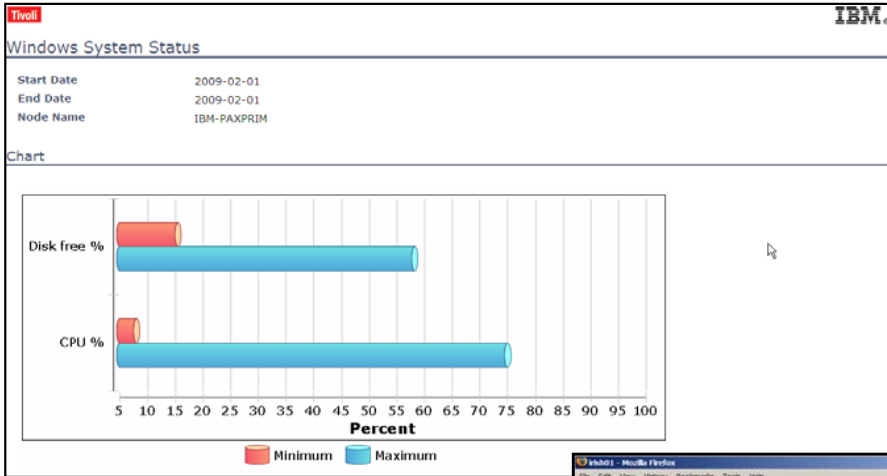


TDS – Tivoli Decision Support

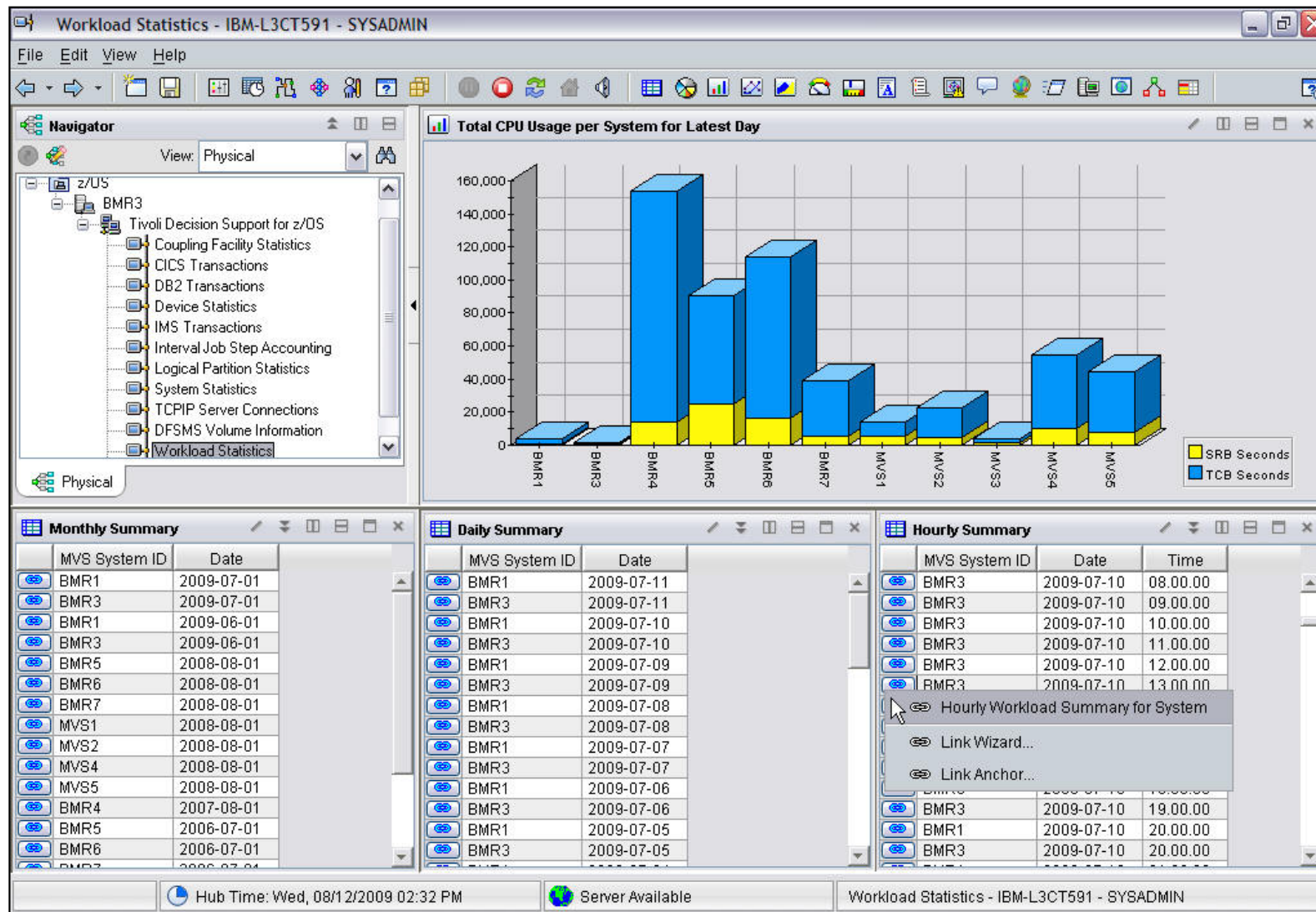


Más de 800 reports estándar se incluyen con el TDS base y las diferentes features

TDS – Tivoli Decision Support - Web reporting con TCR



TDS – Tivoli Decision Support – Web reporting con TEP





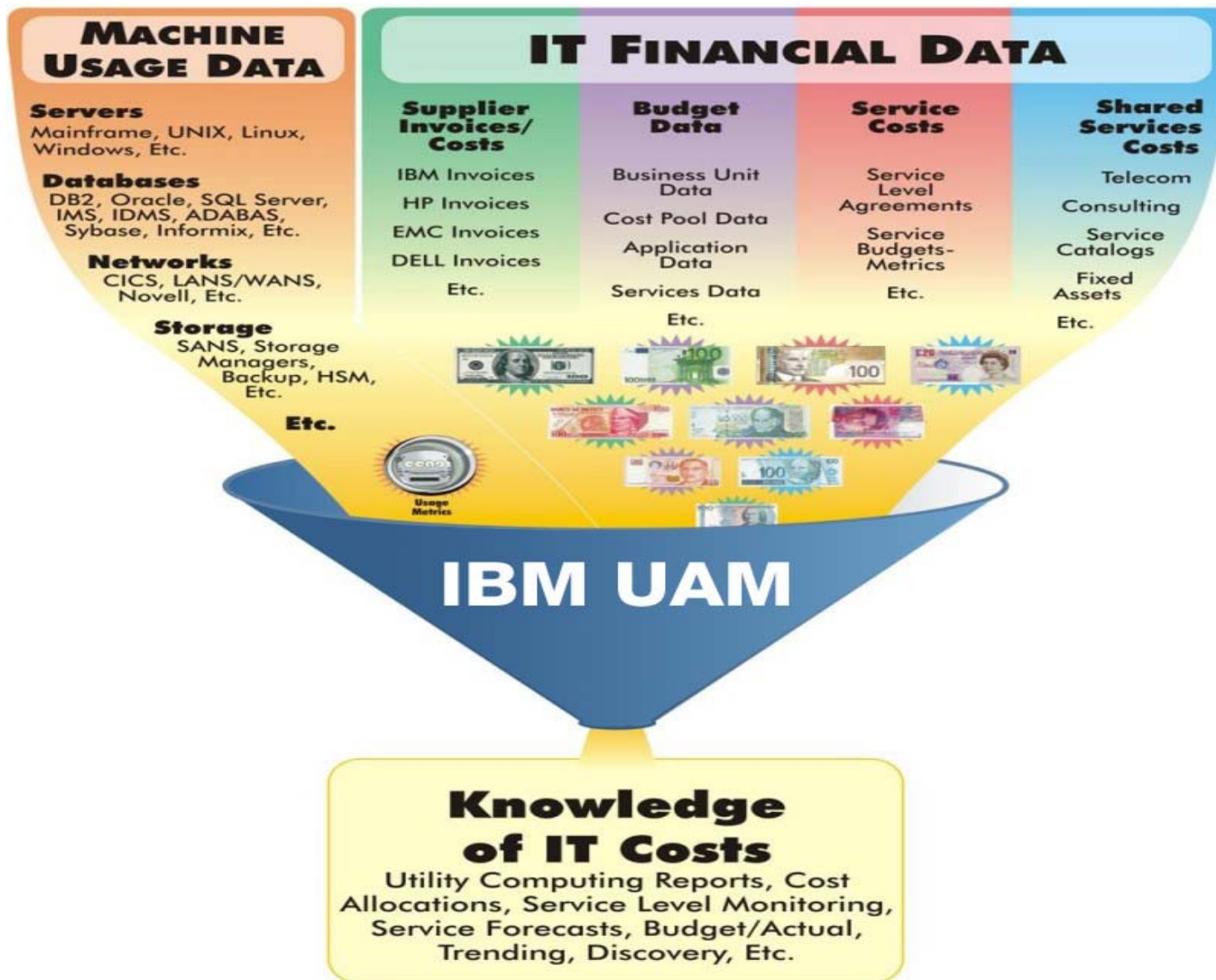
Imputación de costes

IBM Software

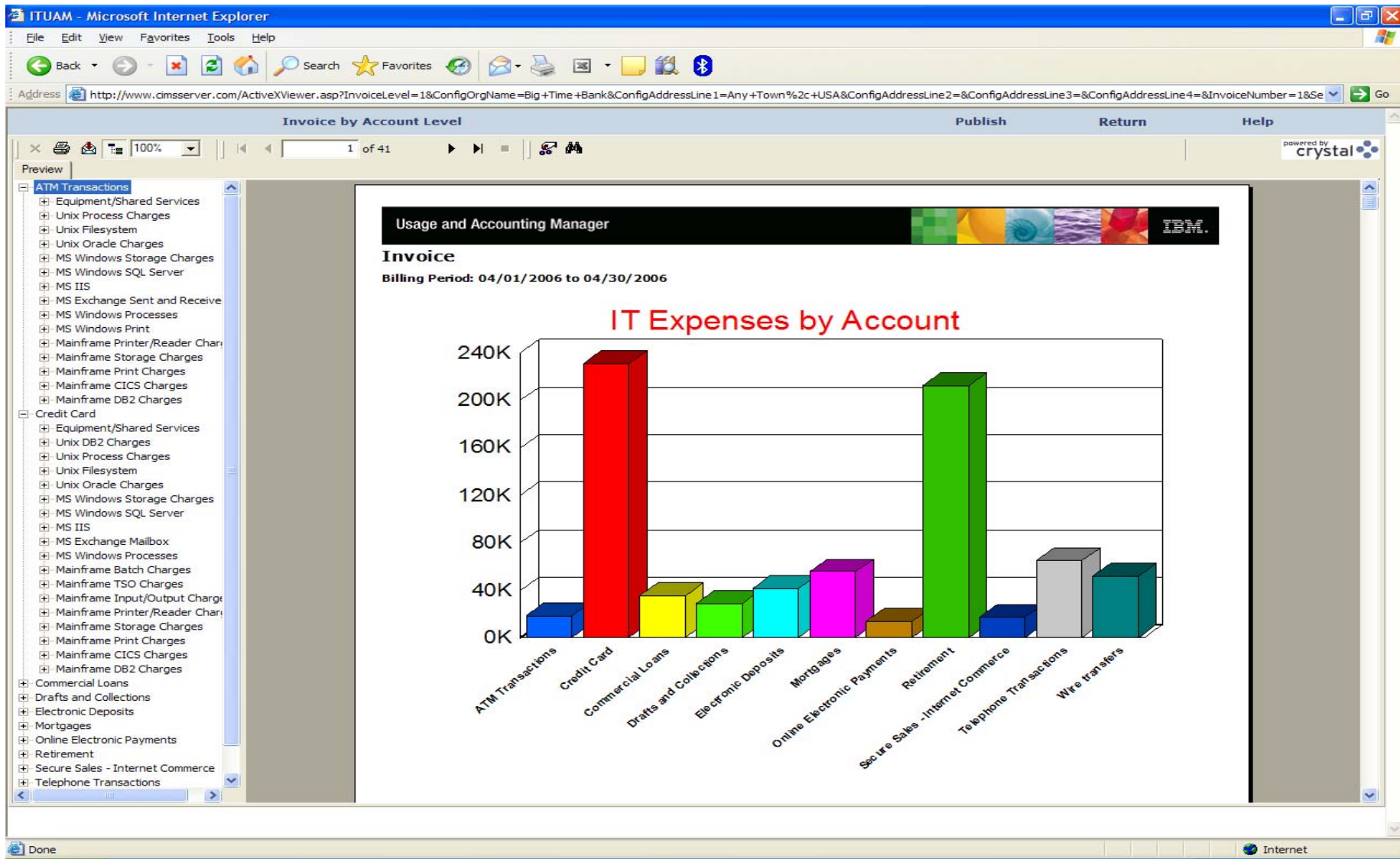
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ITUAM – Conocer los costes IT



ITUAM – Conocer los costes IT





Almacenamiento

IBM Software

PCTY2010



Pulse Comes to You



OMEGAMON XE for Storage on z/OS

Tivoli Enterprise Portal Welcome Arturo Boo Rodriguez Log out IBM

File Edit View Help

Navigator View: Physical

- CXEGA01.ZT01.STORAGE
 - Application Summary
 - Channel Path
 - Cache CU Performance
 - Cache CU Status
 - Logical Control Unit
 - Tape Group
 - Virtual Tape Subsystems
 - SMS Storage Groups Performance
 - SMS Storage Groups Space**
 - User DASD Groups Performance
 - User DASD Groups Space
 - DFSMShsm Status
 - DFSMSrmm Status
 - Dataset Attributes System Summary
 - Dataset Group Summary
 - SMS Configuration
 - Storage Toolkit

Storage Groups with Free Space % < 10

SMS Storage Groups Space Summary

Group Name	Storage Group Status	Storage Group Type	Non-Enabled Volumes	Total Volumes	VTOC Index Status	Low Volume Free Space %	High Volume Fragmentation Index	Largest Free Extent MB	Free Space MegaBytes	Free Space Percent	Total Space MegaBytes	Track Managed Low Volume Free Space %	High
DB2CFG1	Enabled	Pool	Yes	8	Enabled	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
STORAGE NON-SMS VOLUMES	Not Connect...	n/a	No	0	Exclude Li...	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
ZTECPP	Enabled	Pool	No	1	Enabled	0,0	1000	0	1	0,0	2707	0,0	
DMGROUP	Enabled	Pool	Yes	34	Enabled	0,0	580	1316	9208	10,0	92038	0,0	
PRIVATE NON-SMS VOLUMES	Not Connect...	n/a	No	71	Enabled	0,1	1000	6703	122082	57,0	213849	0,1	
DB2CFG2	Enabled	Pool	Yes	19	Enabled	0,4	845	687	10342	20,1	51433	0,4	
CANDLE	Enabled	Pool	No	9	Enabled	0,8	732	2596	5023	20,6	24363	0,8	
OSGROUP	Enabled	Pool	No	5	Enabled	0,8	24	568	1042	7,6	13535	0,8	
IMSCFG	Enabled	Pool	No	8	Enabled	3,1	465	2024	7991	36,8	21656	3,1	
USRGROUP	Enabled	Pool	No	16	Enabled	3,7	579	164	3657	8,4	43312	3,7	
TIVCFG	Enabled	Pool	No	4	Enabled	4,8	414	94	1123	10,3	10828	4,8	
PRIMARY	Enabled	Pool	Yes	12	Enabled	5,7	364	192	2364	7,2	32484	5,7	
WASCFG	Enabled	Pool	No	9	Enabled	5,7	298	814	7019	28,8	24363	5,7	
DB2CFG4	Enabled	Pool	No	14	Enabled	6,0	504	464	8000	33,3	27000	6,0	

Hub Time: lun, 05/24/2010 12:47 PM Server Available SMS Storage Groups Space - tepslnx1.pssc.mop.fr.ibm.com - Arturo Boo Rodriguez

Tivoli Advanced Catalog Management for z/OS

- ¿Cual es el plan actual de Backup y Recovery? (Full volume dumps?)
- ¿Está probado el procedimiento de recuperación?
 - ICFRU?
 - ¿Y el recovery de...
- ¿Se comparan las consistencias?
- El recovery... inferior?
- Si hay que rec... tiempo llevaría
- Si no se ac... ecta al negocio?
- ¿Y si se...

¿Ayudaría el poder hacer

- ✓ Backup,
- ✓ Recover
- ✓ Repair
- ✓ Reorganize

de los catálogos en caliente?

Tivoli Advanced Audit for DFSMSHsm

- Trabaja 60 – 150 más rápido que el DFSMSHsm Audit y los comandos Enhanced Audit
- No hay impacto negativo en el rendimiento del DFSMSHsm
- Proporciona fixes para todos los problemas identificados
- Dispone del Advanced *FastAudit-MediaControls* para auditar cintas en minutos en vez de horas o días (DFSMSHsm AuditMediaControls)

Tivoli Advanced Reporting for DFSMSHsm

- Proporciona información procedente de:
 - Control Dataset HSM: Migration, Backup, HSM Tape, Thrashing.
 - Log HSM: Requests
- No interfiere en el trabajo del HSM: usa su propio address space
- Permite informes ad-hoc fácilmente
- Permite ejecutar comandos del HSM
- Dispone de información exportable a Microsoft Excel: 80 gráficos disponibles

Tivoli Advanced Backup & Recovery for z/OS

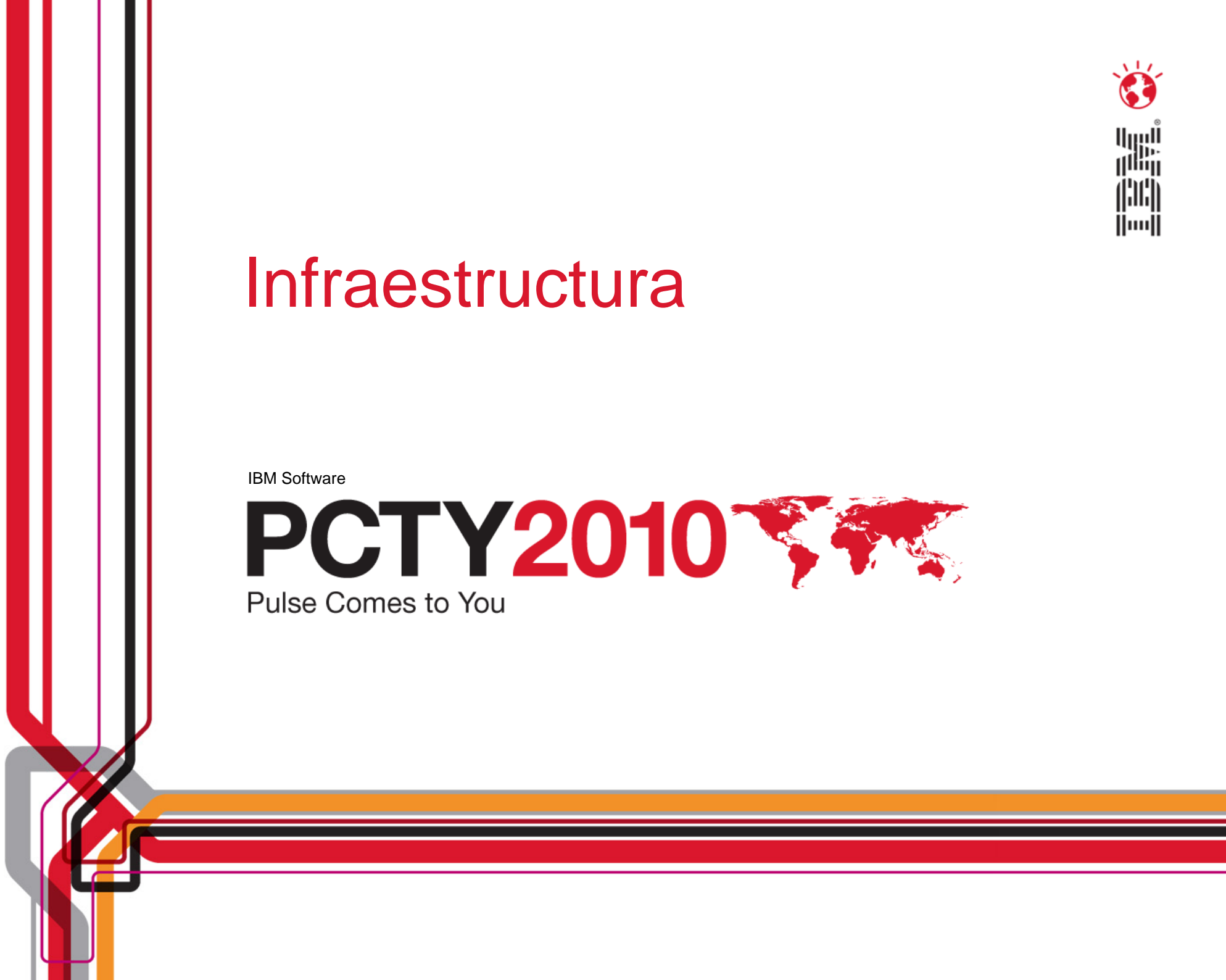
- El Automated Critical Data Identification automatiza la tarea de ayudar a identificar datasets críticos de input y output.
- El Critical Backup Tracking/Inventory ayuda a hacer seguimiento e inventario de los backups.
- El Aggregate Backup and Recovery Support (ABARS) Manager ayuda a simplificar el proceso de backup de datos de disco, cinta y migración del DFSMSHsm sin hacer rellamada (recall).
- Solución total: compara la lista de datos críticos identificados de input y output con los backups a los que se ha hecho seguimiento y nos notifica en caso de problemas



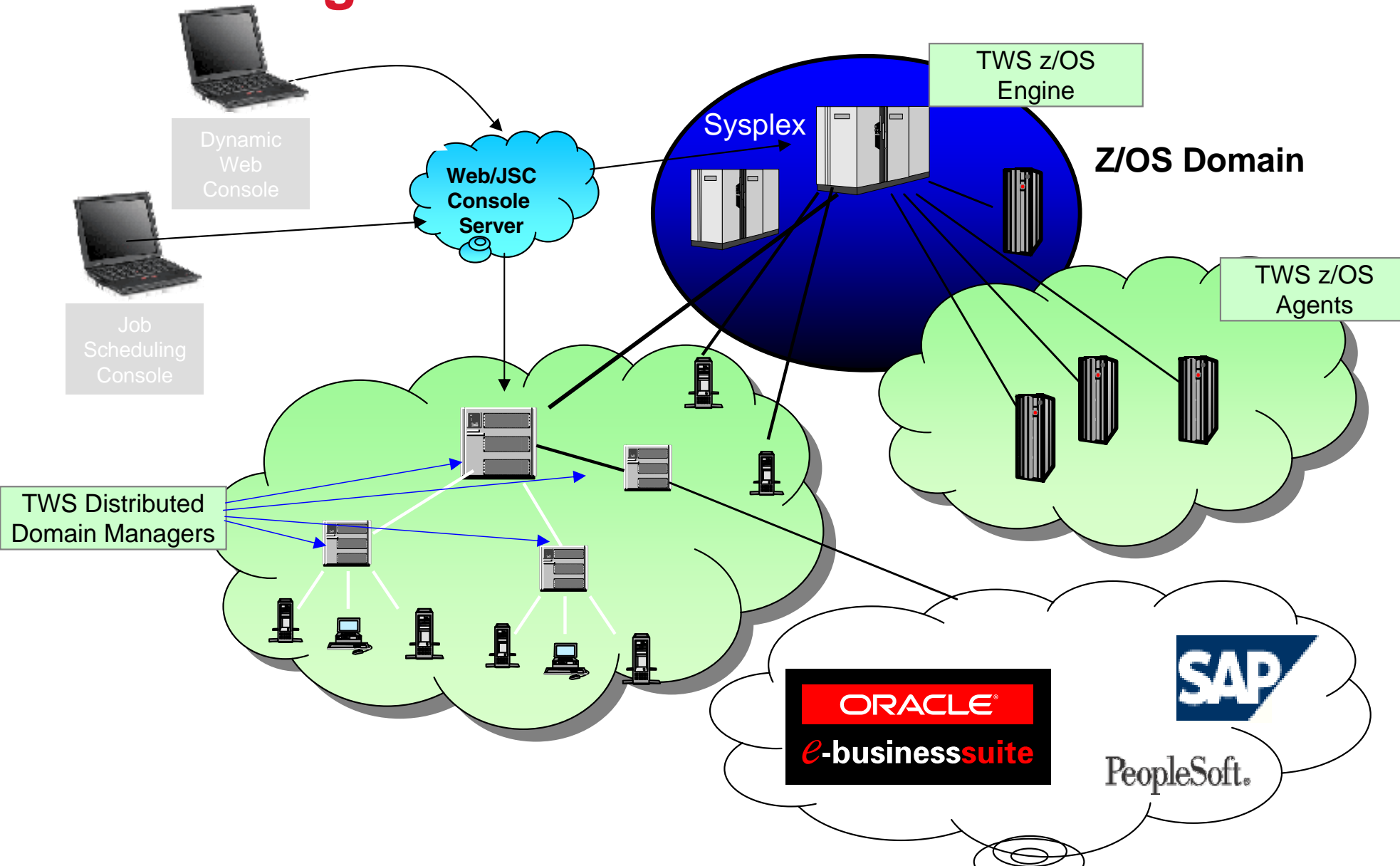
Infraestructura

IBM Software

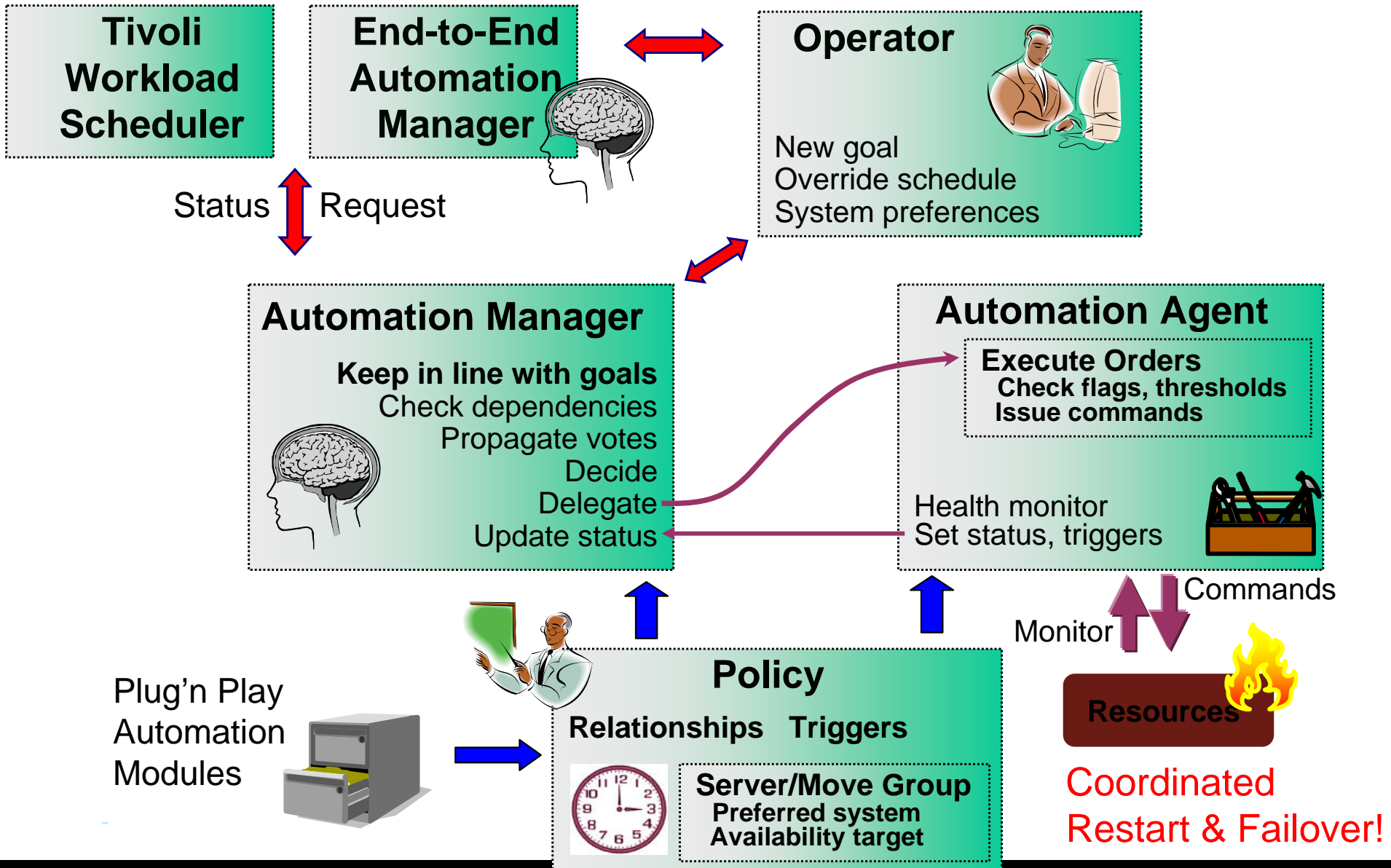
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TWS: configuración End-to-End

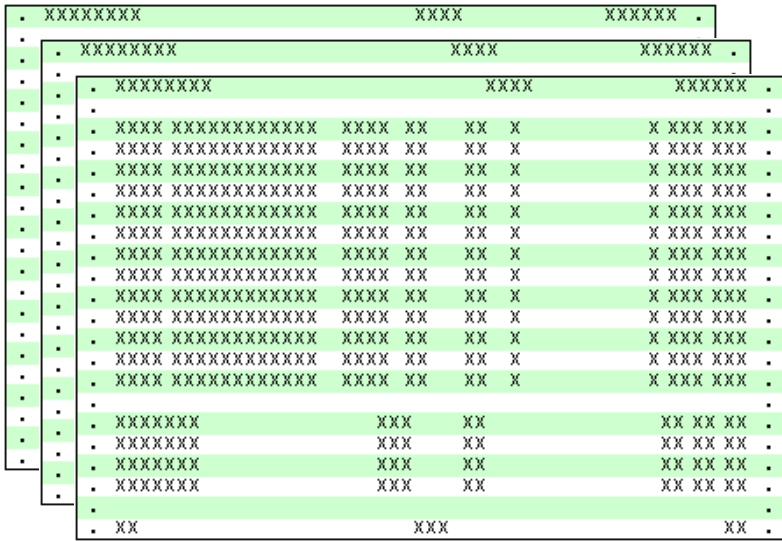


System Automation: principios básicos

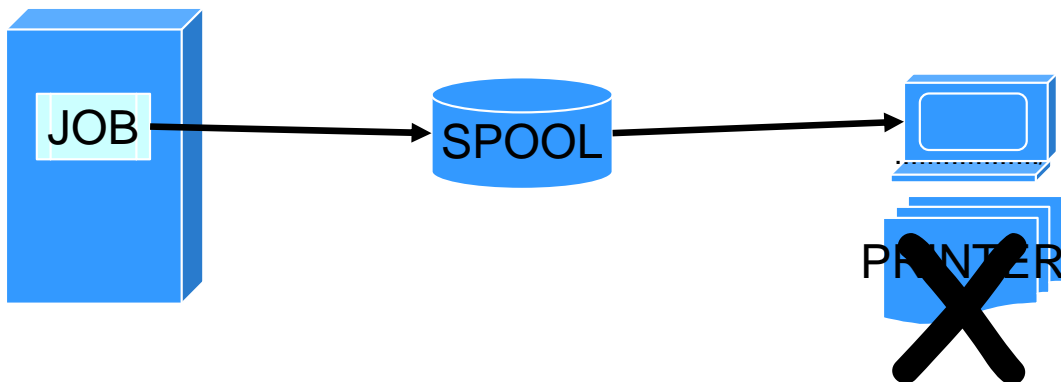


Coordinated Restart & Failover!

Tivoli Output Manager: Gestión de Salidas



- Disminuir al máximo la impresión
- Separar los informes de cada job
- Agrupar páginas de un informe en función de su contenido
- Empaquetarlos para su envío
- Enviar los paquetes a diferentes lugares
- También a diferentes departamentos



- Fomentar la visualización, frente a la impresión
- Web UI para usuarios



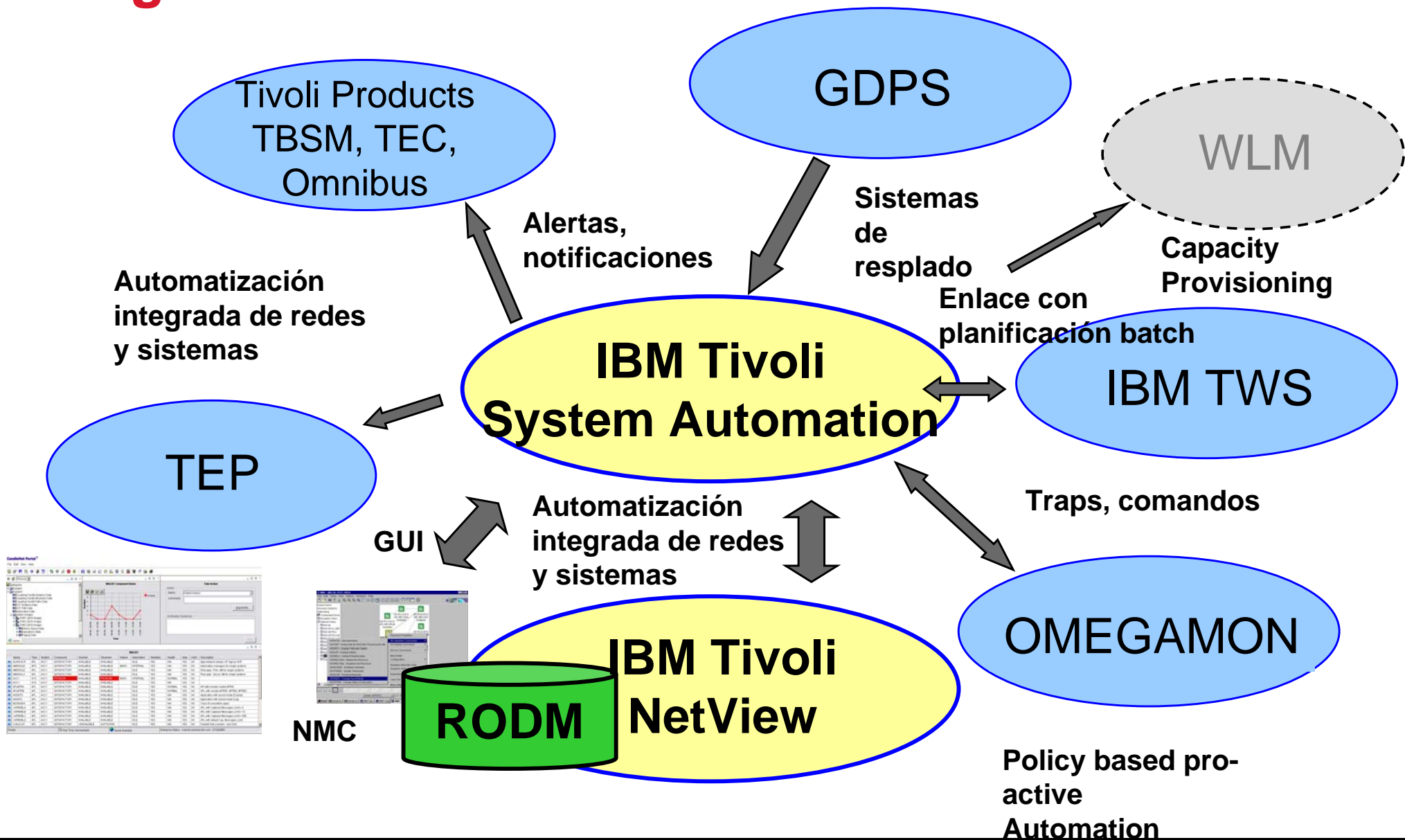
Integración

IBM Software

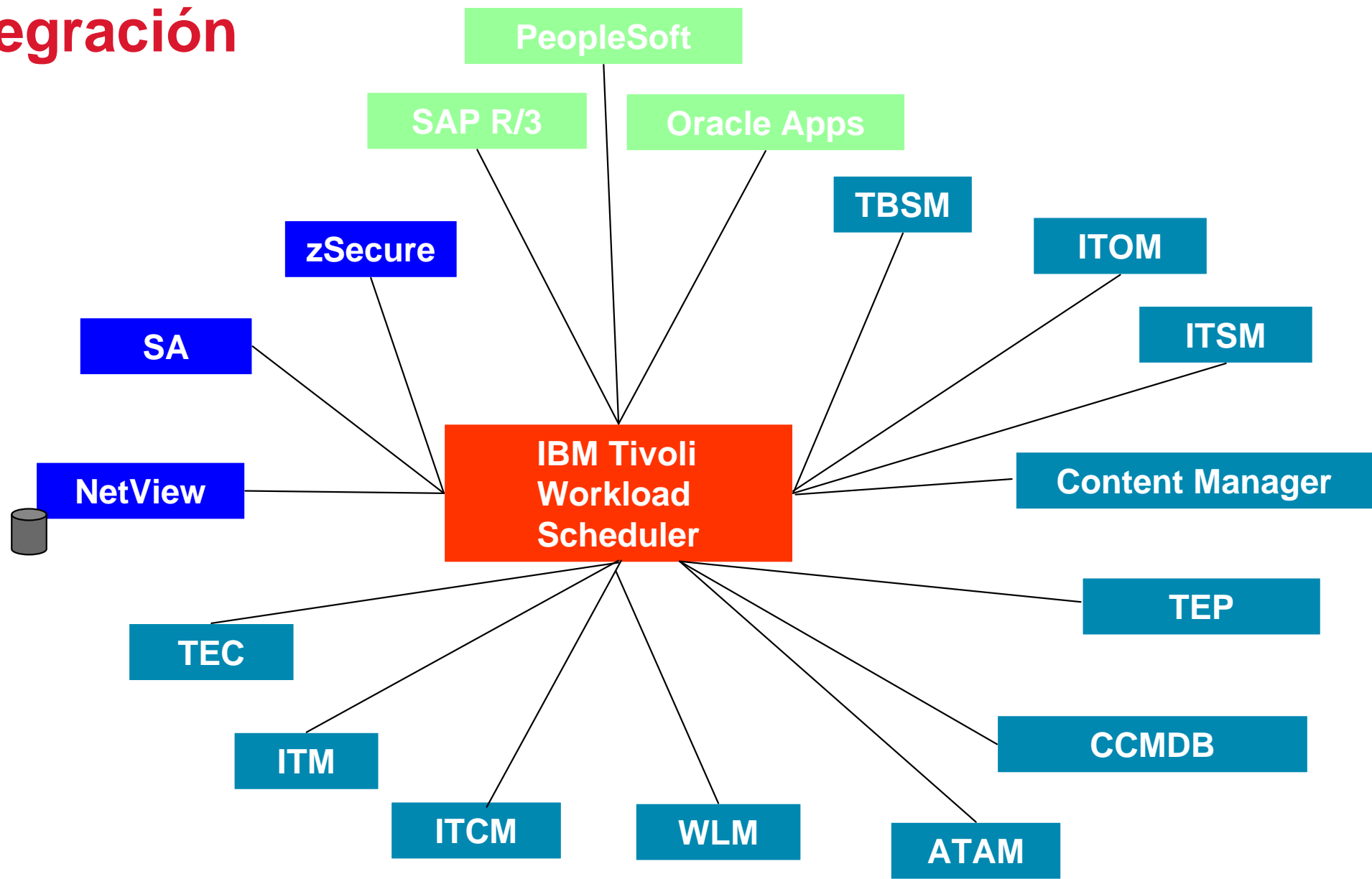
PCTY2010 
Pulse Comes to You



Integración

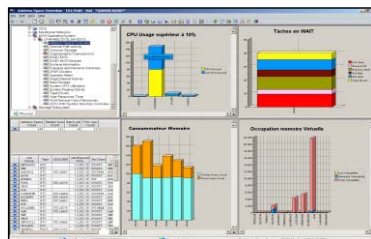
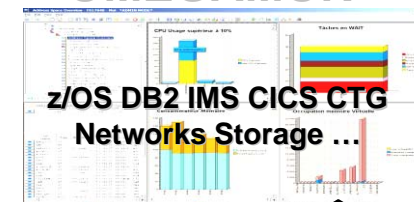


Integración



Integración: Escenario en z/OS

OMEGAMON



TEP

9. Error management

8. Exception(s) on the portal

7. Release ABEND JOB

6. TSA to TWS : CICS Started Successfully

4. TWS to TSA : CICS START Demand

5. Application START

13. View results

11. User query

10. CICS region Informations

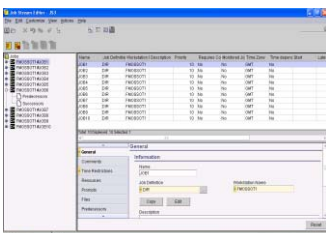
12 informations



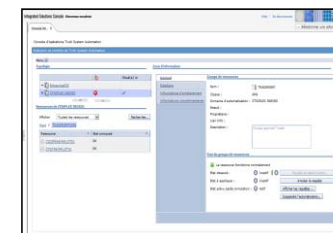
3. TSA to TWS: CICS Stopped Successfully

1. TWS to TSA : CICS STOP Demand

2. Application STOP

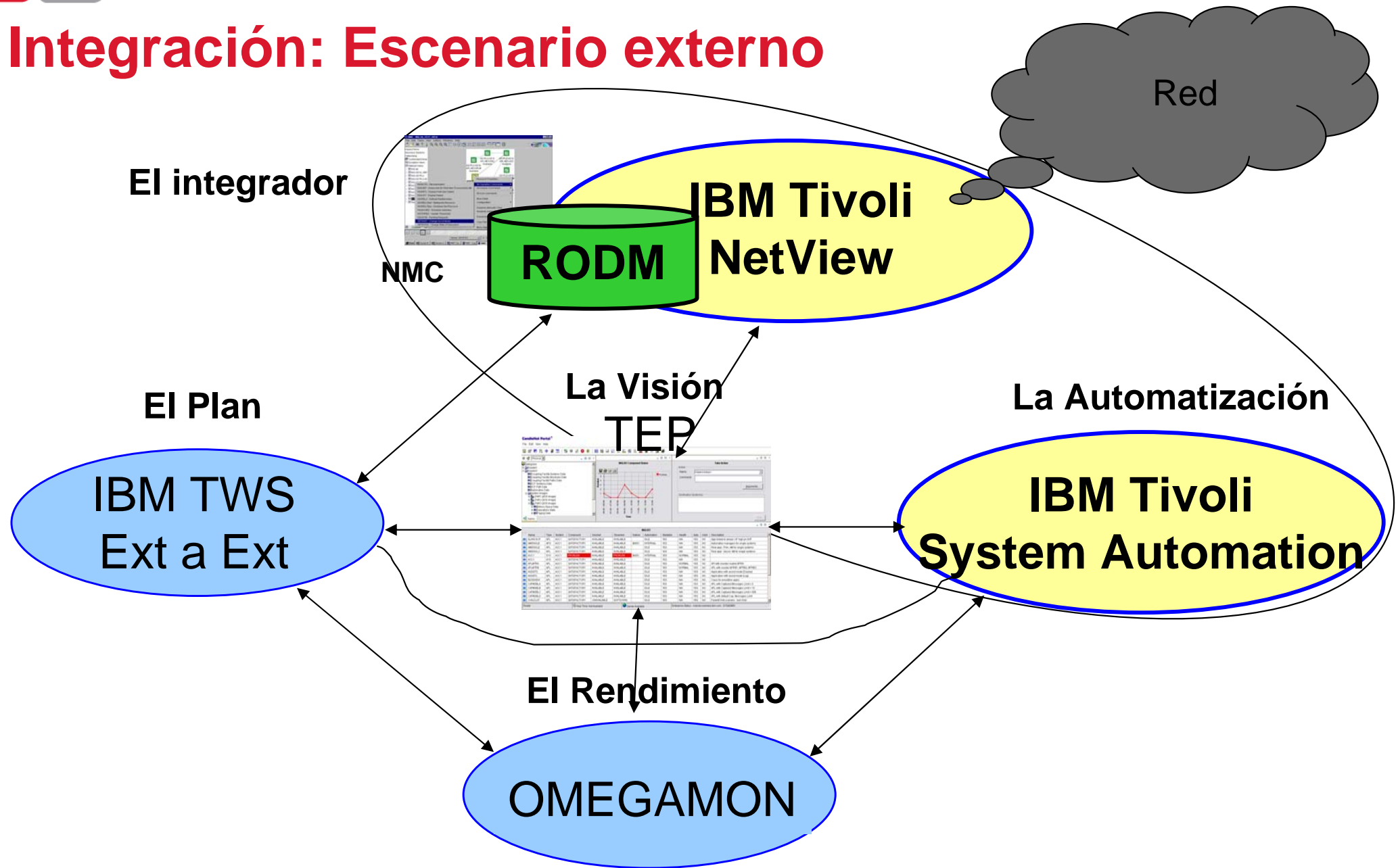


TWS



TSA

Integración: Escenario externo





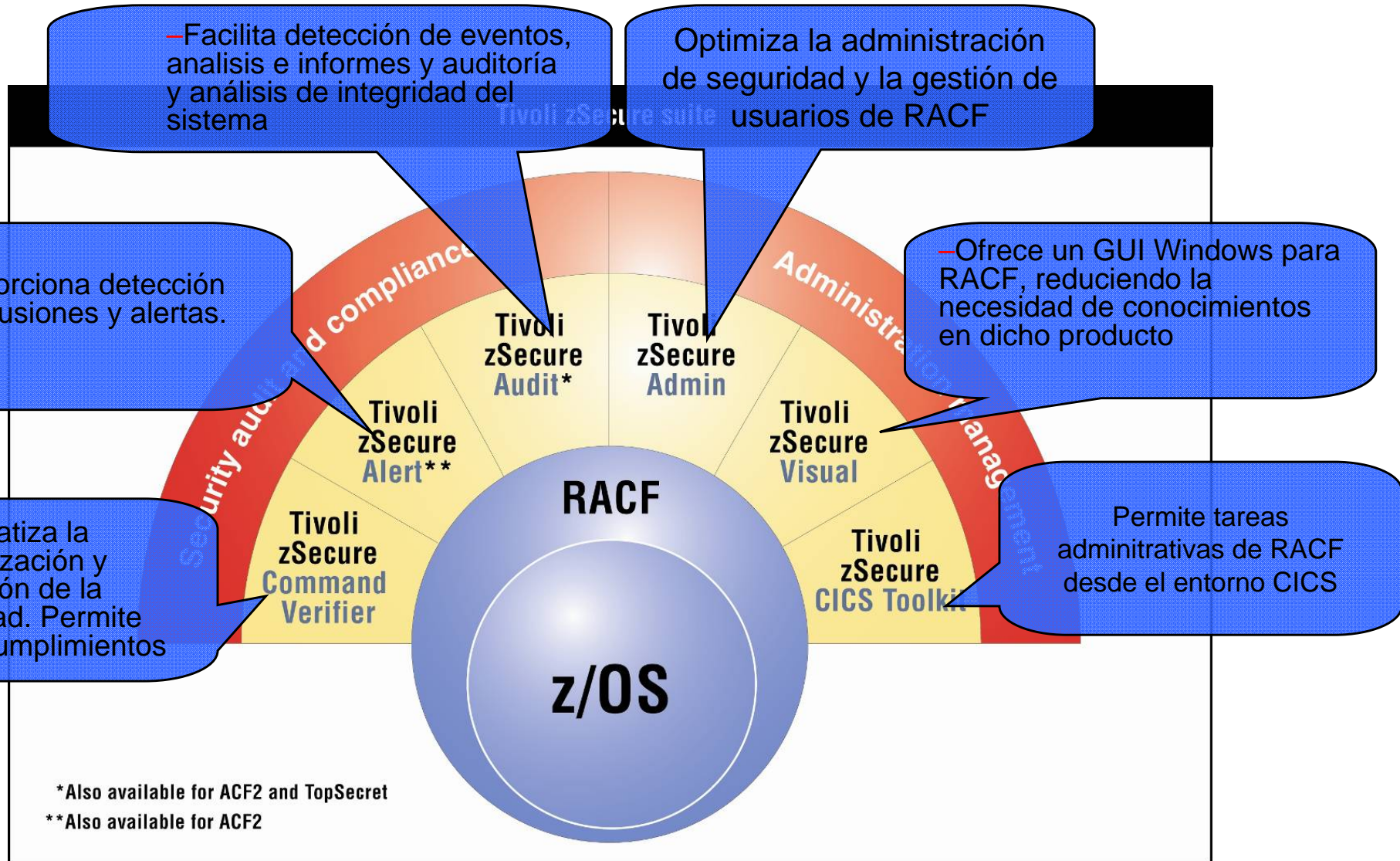
Seguridad

IBM Software

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La nueva familia: IBM Tivoli zSecure Suite



User overview

```

Session A - [32 x 80]
File Edit View Communication Actions Window Help
Consul zSecure RACF USER overview                               Line 1 of 57
Command ==>                                                    Scroll==> CSR
All users                               6 May 2007 09:01
  User      Complex  Name                DfltGrp  Owner      RIRP  SOA  gC  LCX  Grp
  ___      ___      ___                ___      ___      ___  ___  ___  ___
  irrcerta  ED02      CERTAUTH Anchor    ___      irrcerta  R     ___  ___  CX  0
  irrmulti  ED02      Criteria Anchor    ___      irrmulti  R     ___  ___  X  0
  irrsitec  ED02      SITE Anchor        ___      irrsitec  R     ___  ___  X  0
  AAAA     ED02      ___                SYS1     STDNT15   ___  ___  ___  X  1
  BL       ED02      LAUFMAN, BLAINE J. OMVS     IBMUSER   ___  SO   ___  ___  3
  CLINARD  ED02      CLINARD, BILL      OMVS     IBMUSER   ___  SO   ___  ___  3
  C2POLICE ED02      CONSUL ZALERT STC  ZSECURE  ZSECURE   ___  ___  ___  X  2
  HTAYLOR  ED02      HANK TAYLOR        OMVS     ROOT      ___  ___  ___  ___  1
  IBMUSER  ED02      ___                OMVS     IBMUSER   ___  SO   ___  X  6
  JAYHILL  ED02      JAYHILL            OMVS     IBMUSER   ___  SO   ___  ___  2
  JAYS     ED02      JAYS               OMVS     IBMUSER   ___  SOA  ___  ___  1
  KATHYVT  ED02      KATHY VAN TORNE    OMVS     JAYHILL   ___  SO   ___  ___  1
  LAUFMAN  ED02      LAUFMAN, ANNE E.   OMVS     IBMUSER   ___  SO   ___  ___  3
  LCMUSR1  ED02      LCMUSR1            OMVS     JAYS     0     ___  ___  X  1
  LCMUSR2  ED02      LCMUSR1            OMVS     JAYS     0     ___  ___  X  1
  LCMUSR3  ED02      LCMUSR1            OMVS     ROOT     0     ___  ___  X  1
  LCMUSR4  ED02      LCMUSR1            OMVS     ROOT     0     ___  ___  X  1
  MIMSJ    ED02      JOHN MIMS          OMVS     ROOT     ___  ___  ___  ___  1
  MOLLY    ED02      LEVENSON, MOLLY F. OMVS     IBMUSER   ___  SO   ___  ___  3
  OEDFLTU  ED02      ___                OEDFLTG  IBMUSER   ___  ___  ___  X  1
  OMVSKERN ED02      ___                OMVS     IBMUSER   ___  ___  ___  X  1
  RDUBERT  ED02      BOB UBERT          OMVS     JAYHILL   ___  SO   ___  ___  1
  ROBVANH  ED02      ROB VAN HOBOKEN    OMVS     TRAINERS  ___  SO   g  ___  4
  ROOT     ED02      ___                OMVS     IBMUSER   ___  SO   ___  ___  1
  SBATTA   ED02      BATTA, SANDEEP N.  OMVS     IBMUSER   ___  SO   ___  ___  3
  STDEMO   ED02      ___                SYS1     STDNT04   ___  ___  ___  X  1
  STDNT01  ED02      WOLFGANG PROELL    STUDENT  STUDENT   ___  S    ___  ___  1
  STDNT02  ED02      STEPHANE LY        STUDENT  STUDENT   ___  S    ___  ___  2
  
```

MA a 02/015

Connected to remote server/host 9.44.15.210 using lu/pool NTCP0020 and port 23

Audit - Detail summary example

```
Session A - [24 x 80]
File Edit View Communication Actions Window Help
Event log record detail information Line 1 of 612
250ct07 14:14 to 250ct07 23:37

Date Time Description
___ 250ct2007 14:14:05 RACF RACINIT violation for TIVCFG: Job Start / Logon
___ 250ct2007 14:14:44 RACF RACINIT violation for PIERRE: Job Start / Logon, APP
___ 250ct2007 14:14:44 RACF RACINIT violation for PIERRE: Job Start / Logon, APP
___ 250ct2007 14:15:01 RACF RACINIT violation for TIVCFG: Job Start / Logon
___ 250ct2007 14:15:32 RACF RACINIT violation for PIERRE: Job Start / Logon, APP
___ 250ct2007 14:15:32 RACF RACINIT violation for PIERRE: Job Start / Logon, APP
___ 250ct2007 14:15:51 RACF RACINIT violation for SYS07298: Job Start / Logon
___ 250ct2007 14:15:51 RACF RACINIT violation for SYS07298: Job Start / Logon
___ 250ct2007 14:15:51 RACF RACINIT violation for SYS07298: Job Start / Logon
___ 250ct2007 14:15:51 RACF RACINIT violation for SYS07298: Job Start / Logon
___ 250ct2007 14:15:51 RACF RACINIT violation for SYS07298: Job Start / Logon
___ 250ct2007 14:15:51 RACF RACINIT violation for SYS07298: Job Start / Logon
___ 250ct2007 14:15:51 RACF RACINIT violation for SYS07298: Job Start / Logon
___ 250ct2007 14:15:51 RACF RACINIT violation for SYS07298: Job Start / Logon
___ 250ct2007 14:15:51 RACF RACINIT violation for SYS07298: Job Start / Logon
___ 250ct2007 14:15:52 RACF RACINIT violation for SYS07298: Job Start / Logon
___ 250ct2007 14:15:52 RACF RACINIT violation for SYS07298: Job Start / Logon
___ 250ct2007 14:15:52 RACF RACINIT violation for SYS07298: Job Start / Logon
___ 250ct2007 14:15:52 RACF RACINIT violation for SYS07298: Job Start / Logon
Command ==> Scroll==> PAGE
F1=HELP F2=SPLIT F3=END F4=RETURN F5=RFIND F6=RCHANGE
F7=UP F8=DOWN F9=SWAP F10=LEFT F11=RIGHT F12=RETRIEVE
MA a 10/002
Connected to remote server/host 9.212.143.123 using lu/pool TCP00094 and port 23
```

Audit - Detail record

```
Session A - [24 x 80]
File Edit View Communication Actions Window Help
Event log record detail information Line 1 of 37
250ct07 14:14 to 250ct07 23:37

Description
RACF RACINIT violation for PIERRE: Job Start / Logon, APPL=MOPDB21

Record identification
Jobname + id: DB21MSTR
SMF date/time: Thu 25 Oct 2007 14:14:44.21
SMF system: ZT01 record type: 80 record no: CKR1SM01 700

Event identification
RACF event description Racinit (Failure:Invalid password)
RACF event qualifier 1
RACF descriptor for event Violation
RACF reason for logging Racinit failure Applaudit
SAF authority used
Audit/message logstring

Object identification
Command ==> PAGE
F1=HELP F2=SPLIT F3=END F4=RETURN F5=RFIND F6=RCHANGE
F7=UP F8=DOWN F9=SWAP F10=LEFT F11=RIGHT F12=RETRIEVE

MA a 22/015
Connected to remote server/host 9.212.143.123 using lu/pool TCP00094 and port 23
```

zSecure Alert, las alertas

Alert: Global read specified on /etc/security/server.kdb

File Edit View Create Actions Help

Workspace **Alert: Global read specified on /etc/security/server.kdb** notes

New Memo Reply Forward Delete Folder Copy into

C2POLICE at PROD To: Joe.Security@consul.com
15/09/03 1:41 cc: Pete.Auditor@consul.com
Subject: Alert: Global read specified on /etc/security/server.kdb

Global read specified when altering file access

Alert id	1403
Date and time	Mon 15/09/03 1:40
Path	/etc/security/cert.arm
Old permissions	rw-----
New permissions	rw-r--r--
Result	Success
User	SPROG11 JOE TECHNICIAN
Job name	SPROG11
System ID	PROD

Alert: Global read specified on ./run/cnrxudb
Global read specified when altering file access

Alert id	1403
Date and time	Mon 15/09/03 1:40
Path	/etc/security/server.kdb
Old permissions	rw-----
New permissions	rw-r--r--
Result	Success
User	SPROG11 JOE TECHNICIAN
Job name	SPROG11
System ID	PROD

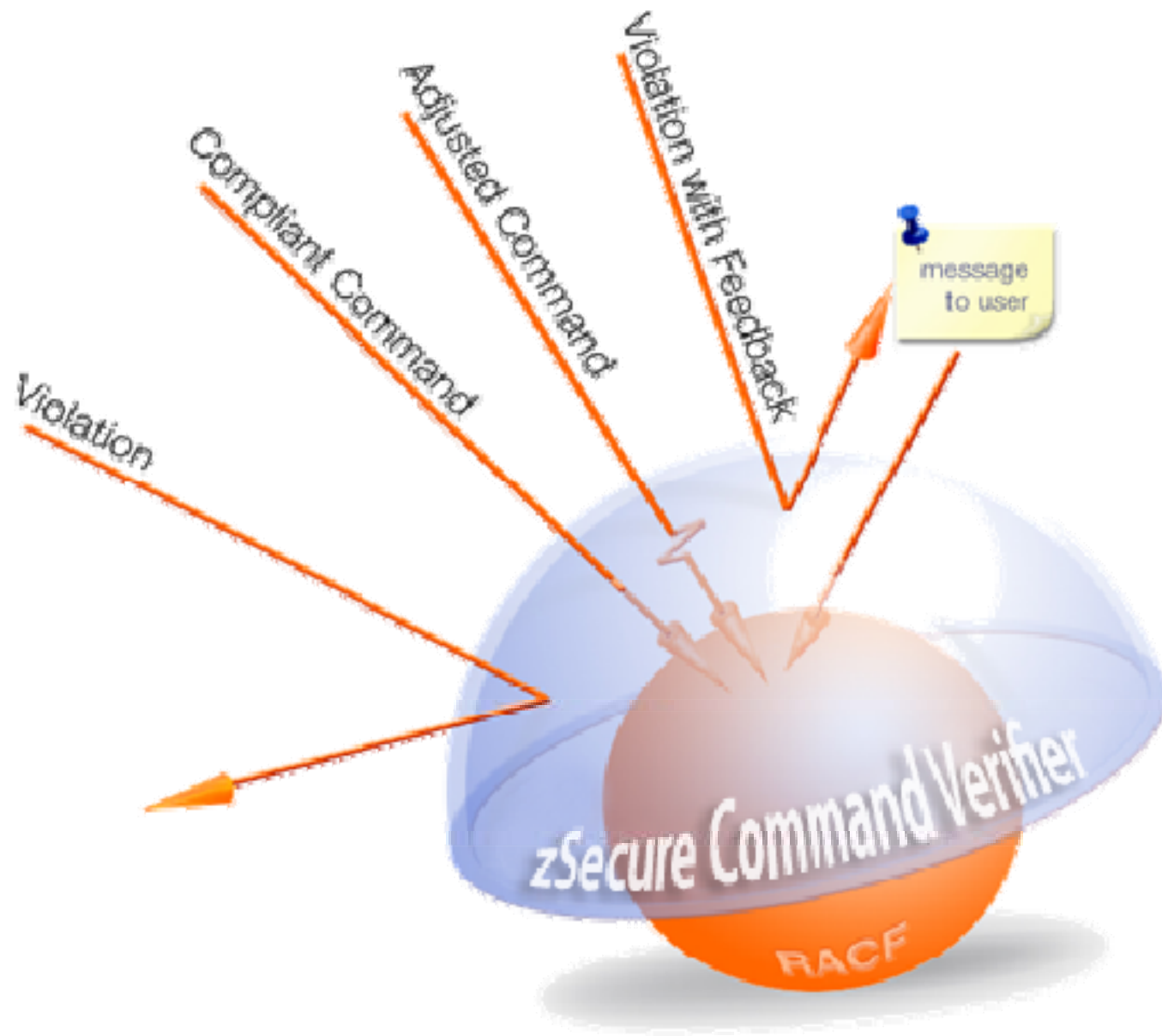
The image shows a Sony Ericsson mobile phone and an IPAQ pocket PC. The phone screen displays a truncated version of the alert: "15-March-03 15:29 Sender: C2POLICE Alert: UNIX access violation on /usr/include/stddef.h". The pocket PC screen shows the full email interface with the alert details, including the subject "Alert: UNIX access violation on /usr/include/stddef.h" and the path "/usr/include/stddef.h".

Cuando es crucial la necesidad de visualizar en tiempo real las alertas.

También envía WTO para informar o disparar acciones del operador automático

Puede mandar SNMP traps

zSecure Command Verifier





Gracias