# 09994: CA SYSVIEW What's New in r13

Jim Cray



#### abstract



Attend this session to get an update to the latest offerings of CA SYSVIEW Performance Management. This session will be a must see for users of the product and users of any performance monitoring solution to see innovations CA is bringing to market. After attending this session you have a new outlook for your performance management products and their value.



## agenda



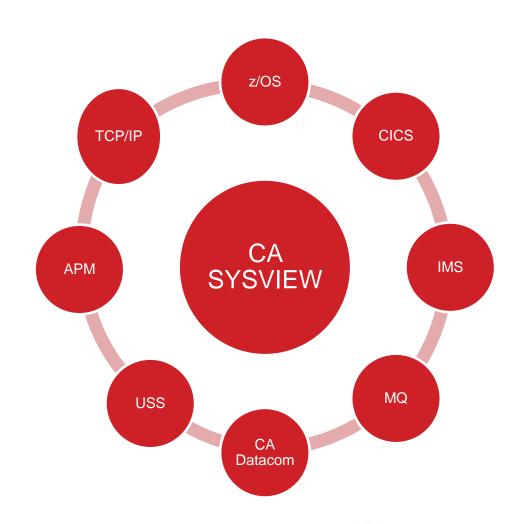
- CA SYSVIEW Performance Management
  - common features
  - product architecture
  - components and options
- What's new in SYSVIEW r13 (GA May 2011)
  - Latest enhancements
- Greater capabilities
  - Integration
  - Part of a larger picture (GA June 2011)
- Future considerations
  - Product direction



#### **CA SYSVIEW Overview**



- Real-time and historical mainframe system monitor
- Multiple optional interface options to meet your needs
  - Traditional 3270 "green screen" VTAM, ISPF, TSO, CICS or CA Roscoe.
  - Graphical Management
     Interface (GMI)
    - Windows client
    - Browser based







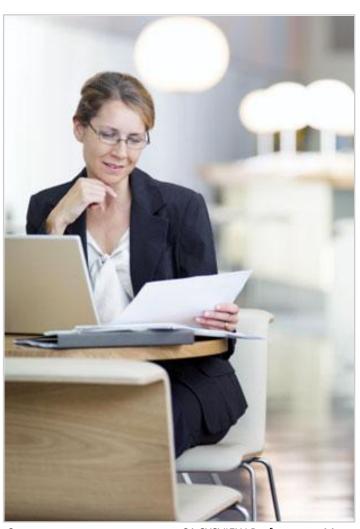


- Real-time and historical mainframe system monitor
- Centralized threshold based alerting and data capture
- Drill-down problem determination
- Multiple interface options
- Screen customization
- Dashboards
- Cross system monitoring and management



# **CA SYSVIEW** key differentiators





#### **The CA Technologies Difference**

- High integration within each solution
- zIIP enablement/offload
- One product for z/OS, CICS, IMS, WebSphere MQ, USS, TCP/IP, JES, CA Datacom/DB
- Troubleshoot the root cause of performance problems
- Mainframe 2.0 vision



# product architecture



# data collection and monitoring



- low system resource consumption
  - Even better with r13
  - completely tunable based on system resources and usage
  - Amount of data collected and retention period is user defined
- Utilizes CA Common Services for simplified product key maintenance, inter-product communications, and system communications.



# What's new in SYSVIEW r13





- SYSVIEW zIIP Exploitation
  - The zIIP processor offers the potential of offloading specific types of work from a general processor or CP.
- The following SYSVIEW components are enabled for zIIP exploitation:
  - SYSVIEW Main Services Address Space
  - SYSVIEW for CICS Data Collection





- SYSVIEW Data Collection
  - The SYSVIEW data collection process collects and monitors a variety of metrics for all of supported components such as: z/OS, CICS, IMS, WebSphere MQ, and TCP/IP.
  - Data collection includes event based and interval driven sampling.
    - The data collection processes is controlled by the SYSVIEW Event
      - Scheduler. The scheduler provides the ability to schedule events on an interval basis. The scheduled event definitions can be customized to control the collection interval, time of day and day of week





- The scheduler provides an easy method to control the data that is being collected and how often.
- In addition to being able to set the data collection frequency, to selectively choose the individual metrics that are collected.
- The SYSVIEW data collector components collect, monitor and provide exception processing for a large number of resources and metrics.
- In some sites, a user may not have the need or desire to collect information on all possible resources and metrics. In this situation, the collection of unwanted or unneeded metrics is a waste of important system resources and CPU cycles





The disabling of unwanted or unneeded data collection metrics will reduce CPU cycles and the amount of storage used by the data collection data spaces. The reduction in data space storage will also reduce the amount of real storage used by the SYSVAAST data anchor address space.





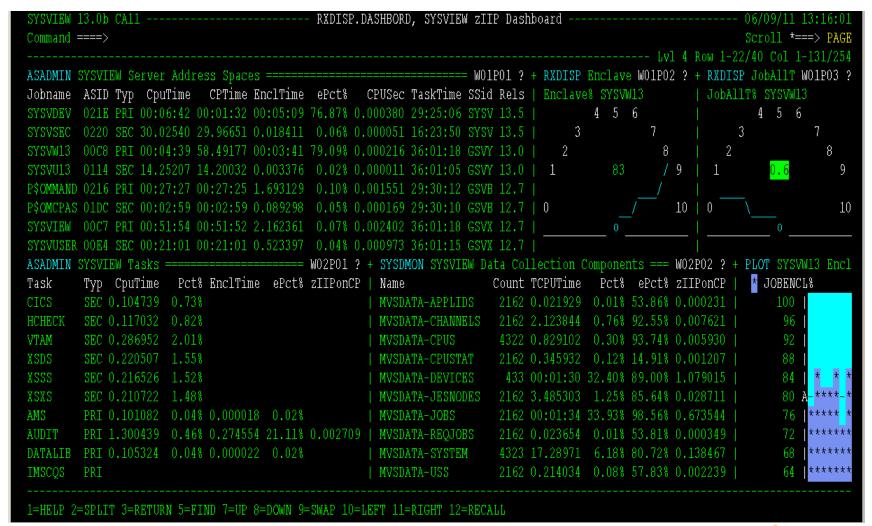
#### zIIP

SYSVIEW 13 Command ==												Scrol	/11 13:15:24 l *===> PAGE ol 1-131/185
	FAULT CONFI SRT NoLIM N			ARY ZIIP									
Cmd	Jobname	Task	Id	Status	CpuTime	Pct%	CPTime	EnclTime	ePct%	zIIPTime	zIIPonCP	zPct%	zSwitch
	SYSVDEV			ACTIVE	00:06:41	100.00%	00:01:32	00:05:08	76.86%	00:05:04	3.503400	75.90%	
		MAIN	MAIN	ACTIVE	0.366022	0.09%	0.366022						
		AMS	AMS	ACTIVE	0.146218	0.04%	0.146199	0.000018	0.01%	0.000018		0.01%	9
		APPLMON	APPLMON	ACTIVE	1.893776	0.47%	1.615863	0.277913	14.68%	0.271380	0.006532	14.33%	98737
		AUDIT	AUDIT	ACTIVE	1.809275	0.45%	1.605417	0.203858	11.27%	0.200441	0.003416	11.08%	73435
		CICSLOGR		MODEL									
		CICSLOGR	CICSLOGR	ACTIVE	1.665152	0.41%	1.453223	0.211928	12.73%	0.209039	0.002889	12.55%	83119
		DATALIB	DATALIB	ACTIVE	0.149701	0.04%	0.149683	0.000017	0.01%	0.000017		0.01%	9
		ENF		INACTIVE									
		GETJOBID		INACTIVE									
		IMSCQS	IMSCQS	ACTIVE	0.171225	0.04%	0.171206	0.000018	0.01%	0.000018		0.01%	9
		IMSDATA	IMSDATA	ACTIVE	10.51207	2.62%	2.142367	8.369707	79.62%	8.119914	0.249793	77.24%	143715
		IMSLOGR		MODEL									
		IMSLOGR	IMSIMSM	ACTIVE	10.92458	2.72%	9.380974	1.543611	14.13%	1.503481	0.040130	13.76%	352431
		IMSLOGR	IMSIMSU	INACTIVE									
		IMSLOGR	IMSIMSW	ACTIVE	6.107113	1.52%	5.464046	0.643066	10.53%	0.629440	0.013625	10.31%	229907
		IMSSPOC	IMSSPOC	ACTIVE	0.163556	0.04%	0.162294	0.001262	0.77%	0.001240	0.000021	0.76%	239
		JOBS	JOBS	ACTIVE	43.28961	10.78%	22.83666	20.45294	47.25%	20.18644	0.266500	46.63%	303513
1=HELP 2=3	PLIT 3=RETU	RN 5=FIND	7=UP 8=D	OWN 9=SWAI	P 10=LEFT	11=RIGH	12=RECA	ΓΓ					





#### zIIP







#### **Data Collection**

SYSVIEW 13.0	b CA11			VARS, MVS Monitor Variables					06/09	/11 13:17:01
Command ====										1 *===> PAGE
							Lvl 3 R	оw 1-18,	/338 C	ol 1-131/309
Jobname QUIT		D 01AE Job								
Volser MVR1	.CB Devi	n 2D61 Uni	lt 3390-	9 Channel n/a CPU n/a						
Cmd Group	Subgroup	Variable A	Argument	Description	Туре	Datatype	Storage	Alias I	Delta	Absv Avg
ASID	JOB			All processors usage percentage	RATE	BINARY		ALIAS I		AVG
<del></del> .				All processors usage percentage total	RATE	BINARY		ALIAS I	DELTA	AVG
<del></del> .		JOBASST	obname	Additional SRB Service Time (interval)	TIME	STCK		ALIAS I	DELTA	
<del></del>		JOBASSTT	obname	Additional SRB Service Time (total)	TIME	STCK		ALIAS		ABSV
<del>-</del> .		JOBCLOCK j	obname	Wall clock time	TIME	BINARY		ALIAS		ABSV
		JOBCMIS j	obname	Cache read page miss count	COUNT	BINARY		ALIAS I	DELTA	
		JOBCPGI j	obname	Common page in count	COUNT	BINARY		ALIAS 1	DELTA	
		JOBCPU% j	obname	CPU usage percentage	RATE	BINARY		ALIAS I	DELTA	AVG
		JOBCPUSU j	obname	CPU service units	COUNT	BINARY		ALIAS I	DELTA	
		JOBCPUT% j	obname	CPU usage percentage total	RATE	BINARY		ALIAS I	DELTA	AVG
<u> </u>		JOBCPUTM j	obname	CPU time (interval)	TIME	BINARY		ALIAS 1	DELTA	
		JOBCPUTT j	obname	CPU time (total)	TIME	BINARY		ALIAS		ABSV
		JOBCSA j	obname	CSA storage allocated	COUNTAVG	BINARY	STORAGE	ALIAS		AVG
		JOBECSA j	obname	E-CSA storage allocated	COUNTAVG	BINARY	STORAGE	ALIAS		AVG
		JOBEIP% j	obname	Enclave zIIP pct of interval CPU time	PERCENT	BINARY		ALIAS I	DELTA	AVG
		JOBEIPCP j	obname	Enclave zIIP time on CP (interval)	TIME	STCK		ALIAS I	DELTA	
4				Enclave zIIP pct of total CPU time	PERCENT	BINARY		ALIAS		AVG
		JOBEIPTM j	obname	Enclave zIIP time (interval)	TIME	STCK		ALIAS 1	DELTA	
1=HELP 2=SPL	IT 3=RETU	RN 5=FIND 7	=UP 8=DC	WWN 9=SWAP 10=LEFT 11=RIGHT 12=RECALL						





#### **Data Collection**

tatus CTIVE		Next event 06/09/11 13:18:00 Interval 11.000													
d	Group	Name	Туре	TimeBeg	TimeEnd	DateBeg	DateEnd	Every	Limit	Function	Parms				
	*	?Add	RECUR	*	*	*	*	NONE	ONCE	NOOP	*				
		MIDNIGHT	RECUR	00:00:00	*	*	*	24:00:00	NOLIMIT	LIST	SCHD2400				
		NOON	RECUR	12:00:00	*	*	*	24:00:00	NOLIMIT	LIST	SCHD1200				
	CAPTURE	OVERVIEW	RECUR	00:00:00	*	¥	*	00:15:00	NOLIMIT	CAPTURE	OVERVIEW				
	IMSDATA	IMS-IMSIDS	RECUR	00:00:00	*	*	*	00:01:00	NOLIMIT	IMSDATA-IMSIDS	*				
		IMS-POOLS	RECUR	00:00:00	*	*	*	00:01:00	NOLIMIT	IMSDATA-POOLS	*				
		IMS-SYSTEM	RECUR	00:00:00	*	*	*	00:01:00	NOLIMIT	IMSDATA-SYSTEM	*				
		IMS-TRAN-SUMMARY	RECUR	00:00:00	*	*	*	00:01:00	NOLIMIT	IMSDATA-TRANSUM	*				
	MAINT	CAPMAINT	RECUR	00:00:00	*	¥	*	12:00:00	NOLIMIT	CAPTURE	CAPMAINT				
		LIBCACHE	RECUR	00:00:00	*	¥	*	04:00:00	NOLIMIT	LIST	SCHDLIBC				
	MQSDATA	MQS-BUFPOOLS	RECUR	00:00:00	*	¥	*	00:01:00	NOLIMIT	MQSDATA-BUFPOOLS	*				
		MQS-CHANNELS	RECUR	00:00:00	*	¥	*	00:01:00	NOLIMIT	MQSDATA-CHANNELS	*				
		MQS-DQMGRS	RECUR	00:00:00	*	¥	*	00:01:00	NOLIMIT	MQSDATA-DQMGRS	*				
		MQS-PAGESETS	RECUR	00:00:00	¥	*	*	00:01:00	NOLIMIT	MQSDATA-PAGESETS	*				
		MQS-QMGRS	RECUR	00:00:00	¥	¥	*	00:01:00	NOLIMIT	MQSDATA-QMGRS	*				
		MQS-QUEUES	RECUR	00:00:00	¥	¥	*	00:01:00	NOLIMIT	MQSDATA-QUEUES	*				
		MQS-SYSTEM	RECUR	00:00:00	¥	¥	*	00:01:00	NOLIMIT	MQSDATA-SYSTEM	*				
	MVSDATA	MVS-CHANNELS	RECUR	00:00:00	¥	¥	¥	00:01:00	NOLIMIT	MVSDATA-CHANNELS	*				







Comma CICS(	and ===> 013I ASID ame SYSVC6 us		2011/04/17 11:56:11 Scroll *> PAGE Row 1-17/17 Col 1-158/332											
Cmd	Jobname	Group	Name	Туре	Every	Limit	TimeBeq	TimeEnd	Interval	NextTime	LastTime	Count	Function	Parms
	SYSVC640	*	?Add	RECUR	NONE	ONCE	*						NOOP	
	SYSVC640		MIDNIGHT	RECUR	24:00:00	NOLIMIT	00:00:00		12:03:48	00:00:00			NOOP	
			NOON	RECUR	24:00:00	NOLIMIT	12:00:00		00:03:48	12:00:00			NOOP	
		CICSDATA	STATE-CONNECT	RECUR	00:01:00	NOLIMIT	00:00:00		48.000	11:57:00	11:56:00	215	STATE-CONNECT	
			STATE-FACILITY	RECUR	00:01:00	NOLIMIT	00:00:00		48.000	11:57:00	11:56:00	215	STATE-FACILITY	
			STATE-FILES	RECUR	00:10:00	NOLIMIT	00:00:00		00:03:48	12:00:00	11:50:00	21	STATE-FILES	
			STATE-PROGRAMS	RECUR	00:10:00	NOLIMIT	00:00:00		00:03:48	12:00:00	11:50:00	21	STATE-PROGRAMS	
			STATE-SOCKETS	RECUR	00:01:00	NOLIMIT	00:00:00		48.000	11:57:00	11:56:00	215	STATE-SOCKETS	
			STATE-SYSTEM	RECUR	00:01:00	NOLIMIT	00:00:00		48.000	11:57:00	11:56:00	215	STATE-SYSTEM	
			STATE-TDATA	RECUR	00:01:00	NOLIMIT	00:00:00		48.000	11:57:00	11:56:00	215	STATE-TDATA	
			STATE-TERMINALS	RECUR	00:10:00	NOLIMIT	00:00:00		00:03:48	12:00:00	11:50:00	21	STATE-TERMINALS	
			STATE-TRANS	RECUR	00:10:00	NOLIMIT	00:00:00		00:03:48	12:00:00	11:50:00	21	STATE-TRANS	
			SYSDATA-RECORD	RECUR	00:15:00	NOLIMIT	00:00:00		00:03:48	12:00:00	11:45:00	14	SYSDATA-RECORD	
			TRAN-REQUIRED	RECUR	00:01:00	NOLIMIT	00:00:00		48.000	11:57:00	11:56:00	215	TRAN-REQUIRED	
			TRAN-SUMMARY	RECUR	00:15:00	NOLIMIT	00:00:00		00:03:48	12:00:00	11:45:00	14	TRAN-SUMMARY	
			TRAN-THRESHOLDS	RECUR	15.000	NOLIMIT	00:00:00		3.000	11:56:15	11:56:00	859	TRAN-THRESHOLDS	
			TEST	RECUR		NOLIMIT			7.000				NOOP	
***	***	****	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	***	***	***	AAAAAAA EI	nd of Dat	a ******	***	****	***	<b> </b>	de d



- r13
  - MQ Publish and Subscribe support
  - Seventeen new commands
    - Six for CICS
    - Three for DataCom
    - Two for IMS
    - Six for MQ
  - MSM SCS
  - Integration with Mainframe Application Tuner (MAT) ("Tritune")



# points of integration



# points of integration

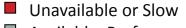


- CA Insight for DB2
  - integrated with CA Insight for DB2 that allows for drill-down capabilities into DB2 threads from CA SYSVIEW tasks
  - DB2 information available within CA SYSVIEW system condition monitor
- CA OPS/MVS
  - out of the box integration with CA OPS/MVS for efficient system automation
- CA APM (formerly CA Wily)
  - CA SYSVIEW data available to the CA APM dashboards
  - end to end application tracing from applications monitored by CA APM into CICS
    - possible with applications invoking CICS through MQ, web services, or CTG

# the importance of monitoring at the business level

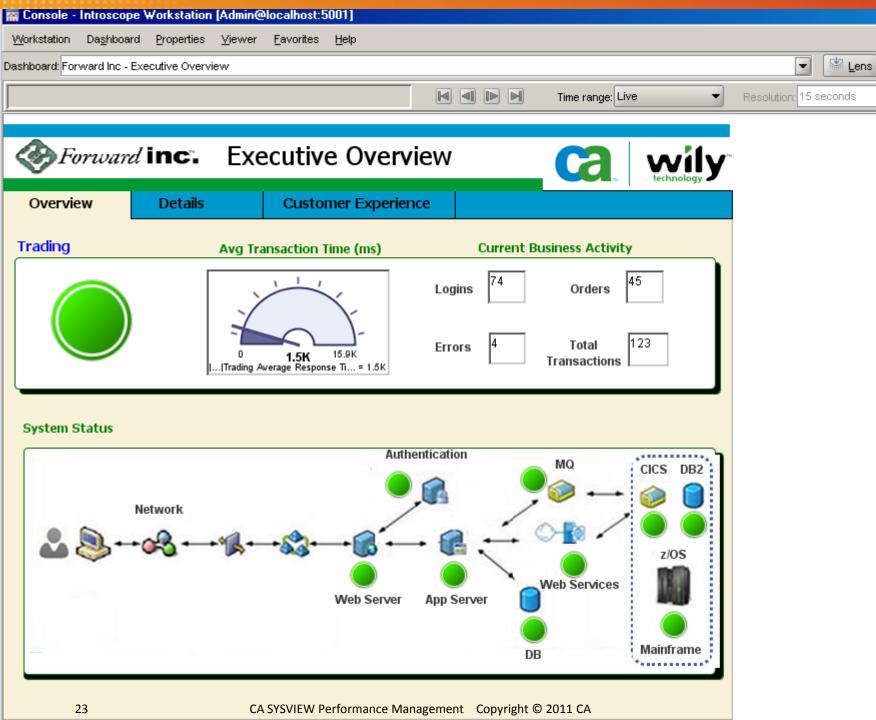






Available, Performant

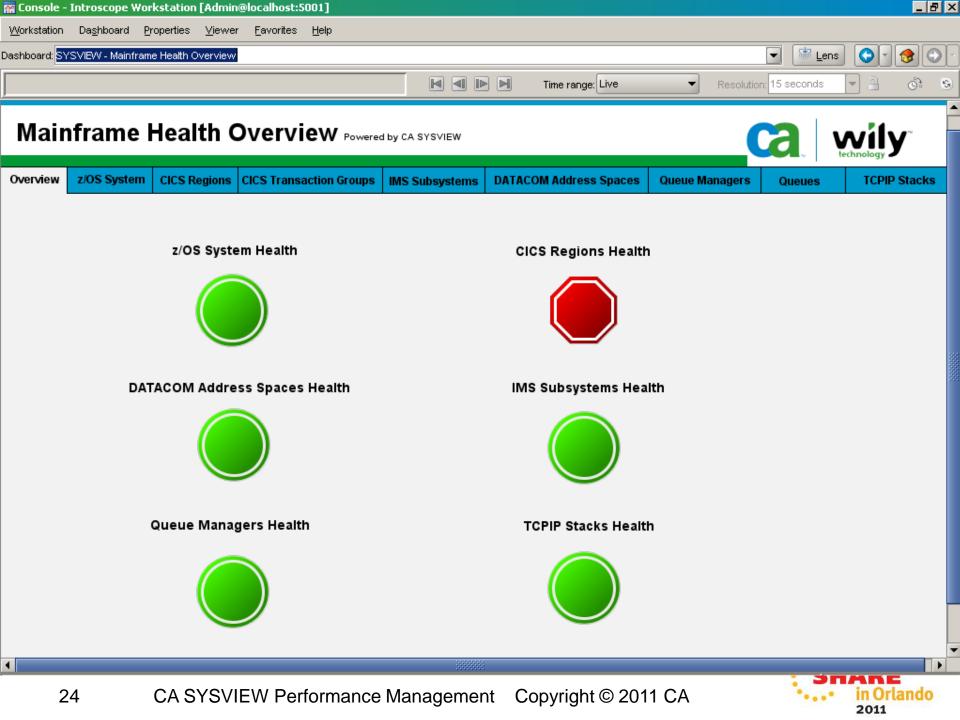


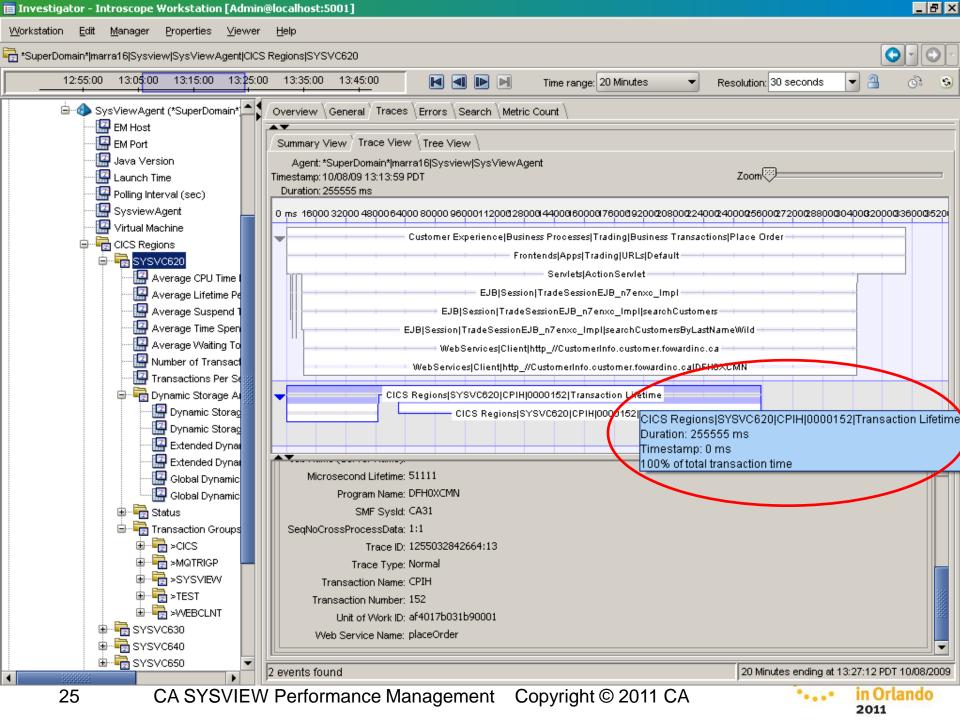


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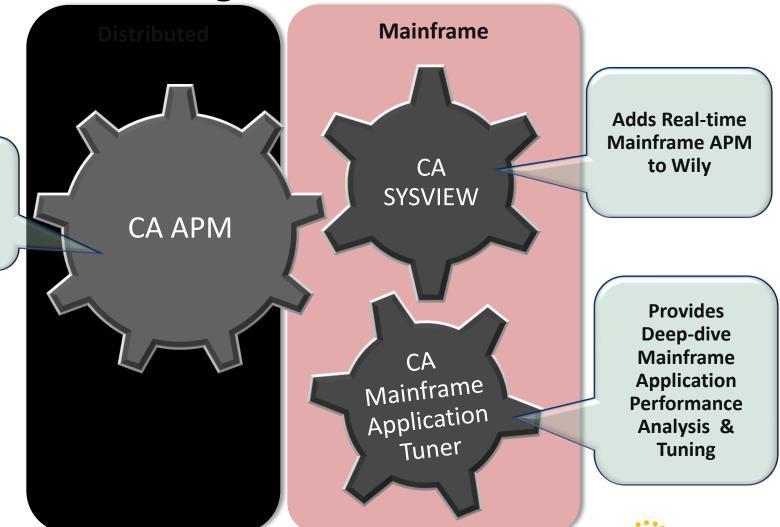


# part of a larger solution



complete mainframe application performance management





Real-time,

**Distributed** 

**APM** 

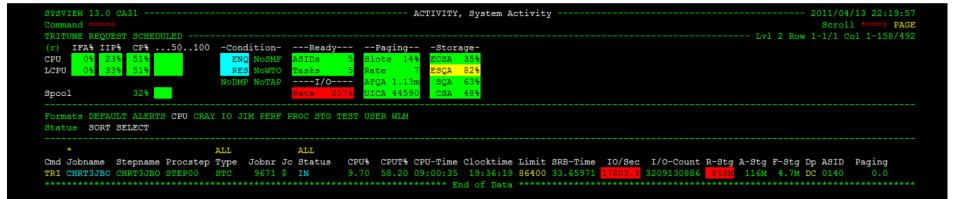
# **Points of Integration**



- Line Command
  - ACTIVITY (z/OS Active tasks)
  - CTASK (CICS active transactions)
  - IMSREGNS (IMS transactions)
- Threshold Breach
  - From any CA SYSVIEW Threshold Breach for z/OS, CICS and IMS.

# Line Command Invoking of CA MAT from CA SYSVIEW ACTIVITY command





**ZUII** 

# Threshold Breach Resulting in the Invoking of CA MAT from CA SYSVIEW



## **VARS**



		CA31				VAI	RS, MVS Monit	or Variab	oles							2			
Command	====>													T-1		1 4.1	Scr	011 *	===> PAGE
Tobneme	craja1	1 7971	022A	Tobid me										TAT	2 ROW	1-41	/ 330	COI	1-156/311
	MVR1CA		2074			n/a CPU n/a													
Cmd Gro					nt Description				Datatype	Storage			Absv				Pct I	Diff	Rule
ASI	ID J	OB	JOBALL%			ors usage percenta		RATE	BINARY		ALIAS			AVG	SAM	PLE			UPPER
						ors usage percenta		RATE	BINARY		ALIAS			AVG RA	TE				UPPER
			JOBASST			SRB Service Time		TIME	STCK		ALIAS	DELTA							UPPER
						RB Service Time	(total)	TIME	STCK		ALIAS		ABSV						UPPER
					e Wall clock t			TIME	BINARY		ALIAS		ABSV						UPPER
			JOBCMIS			age miss count		COUNT	BINARY		ALIAS								UPPER
			JOBCPGI					COUNT	BINARY		ALIAS								UPPER
			JOBCPU%					RATE	BINARY		ALIAS			AVG	SAM	PLE			UPPER
				U jobnam				COUNT	BINARY		ALIAS								UPPER
			JOBCPUT			ercentage total		RATE	BINARY		ALIAS			AVG RA	TE				UPPER
				M jobnam				TIME	BINARY		ALIAS								UPPER
				T jobnam				TIME	BINARY		ALIAS		ABSV						UPPER
			JOBCSA	jobnam				COUNTAVG		STORAGE				AVG					UPPER
			JOBECSA		e E-CSA storag			COUNTAVG		STORAGE				AVG					UPPER
			JOBEIP%			pct of interval			BINARY		ALIAS			AVG	SAM	PLE	PCT		UPPER
						time on CP (inte		TIME	STCK		ALIAS	DELTA							UPPER
						pct of total CPU	J time		BINARY		ALIAS			AVG			PCT		UPPER
						time (interval)		TIME	STCK		ALIAS	DELTA							UPPER
					e Enclave zIIP			TIME	STCK		ALIAS		ABSV						UPPER
						of interval CPU t			BINARY		ALIAS	DELTA		AVG	SAM	PLE			UPPER
						of total CPU time			BINARY		ALIAS			AVG			PCT		UPPER
					e Enclave time			TIME	STCK		ALIAS	DELTA							UPPER
					e Enclave time			TIME	STCK		ALIAS		ABSV						UPPER
						corage sys unallo	cated	COUNTAVG		STORAGE			ABSV						LOWER
			JOBEPVT		e E-Private st			COUNTAVG		STORAGE			ABSV						UPPER
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						corage allocated		COUNTAVG		STORAGE			ABSV						UPPER
						corage user unallo	cated	COUNTAVG		STORAGE			ABSV				1		LOWER
					e E-Private st			COUNTAVG		STORAGE			ABSV						UPPER
						corage system allo		COUNTAVG		STORAGE			ABSV						UPPER
						corage user alloca	ited	COUNTAVG		STORAGE			ABSV						UPPER
			JOBESQA		e E-SQA storag			COUNTAVG		STORAGE				AVG					UPPER
					e EXCPs outsta			COUNTAVG			ALIAS			AVG					LOWER
					e Total fixed			COUNTAVG		STORAGE				AVG					UPPER
					e Fixed LSQA s			COUNTAVG		STORAGE				AVG					UPPER
						ge above 16M line		COUNTAVG		STORAGE				AVG					UPPER
						ge below 16M line		COUNTAVG		STORAGE				AVG					UPPER
						/w service time		TIME	STCK		ALIAS	DELTA							UPPER
			JOBHIPT'			/w service time	(total)	TIME	BINARY		ALIAS		ABSV						UPPER
			JOBHPGI		e Hyperspace p			COUNT	BINARY		ALIAS								UPPER
			JOBHPGO	jobnam	e Hyperspace p	page out count		COUNT	BINARY		ALIAS	DELTA							UPPER



# **CA SYSVIEW Performance Management**

Future/Roadmap



## strategy



- Five areas of Performance Management focus have been identified within the industry that will drive the direction of future CA SYSVIEW development.
- Those main areas defined are:
  - End-user experience monitoring
  - User-defined transaction profiling
  - Application component discovery and modeling
  - Application component deep-dive monitoring
  - Application performance management database





#### status

- Previous Release Status
  - Product Release: r12.7
  - Target End of Service Date: June 2012
- Current Release Status
  - Product Release: r13.0 (GA may 2011)
  - For details on current features and functionality, please review CA SYSVIEW r13.0 Product Brief





# technology directions

- Further speciality processor exploitation
  - zIIP
- Integration and enhanced user experience
  - Tighter integration between Mainframe Application Tuner, Insight DB2, Netmaster
  - IMS, DB2 MQSeries transaction tracing
- Usability
  - Further customization & flexibility
- MF 2.0
- CA Mainframe Chorus
  - Role based Workspace : DBA role is GA, Security role is Beta

#### Peek at r13.5



- r13 via a PTF (October timeframe 2011)
  - WILY APM
    - IMS tracing from MQ trigger and bridge driven transactions
- r13.5
  - WILY APM
    - IMS tracing from MQ trigger and bridge driven transactions



#### Peek at r13.5



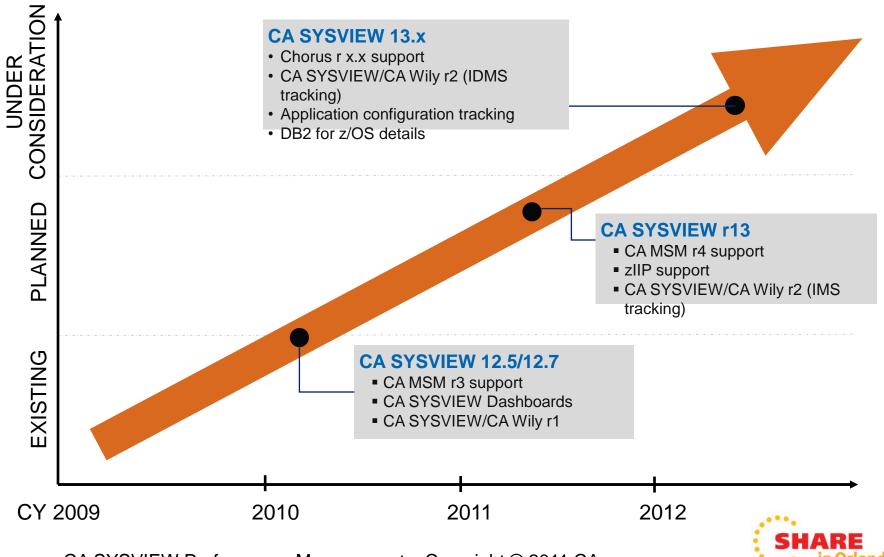
- r13.5
  - Chorus
    - We will start the work but there will be nothing exposed
  - Integration with DB2
    - Right now this is using Insight for DB2 as a server and SYSVIEW as the display engine
  - Thresholds and Alerts
  - More zIIP support
  - JES functional consistency
  - Security (the exit we ship and gen parms)
  - Install



# CA SYSVIEW Performance Management beyond r12.5 timeline as of May 2010



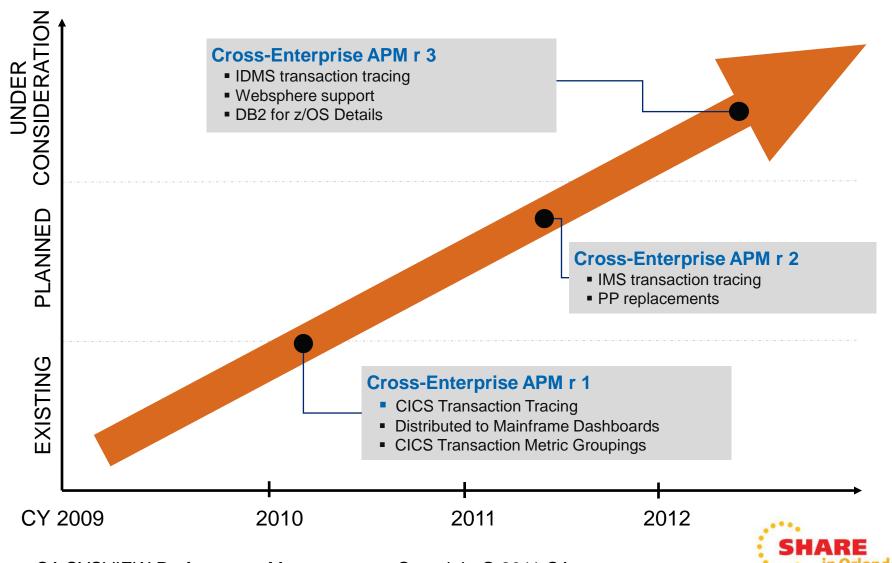
2011



# **Cross-Enterprise APM**



2011



# thank you





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