

can you monitor your mainframe applications in real-time?

APMConnect

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RESPONSESYSTEMS



agility
made possible™



who are Response Systems?

Independent Software Vendor (ISV)

- A long-established CA Technologies product partner
- Founded in 1996 in the UK, with over 150 customers globally
- Acquired by Facet Consulting from Australia in 2007
- Offices in Australia and the United Kingdom

APM offerings for z/OS application customers

- ***APMConnect for Cobol*** enables real-time APM on Cobol
- ***APMConnect for CA Gen*** enables real-time APM on CA Gen

Product offerings for CA Gen customers

- *Access Gen, QA Console and Upgrade Console.*



today

The **changing world** of Application Performance Monitoring

An overview of the APMConnect **solution architecture**

A look at key product **features**

A summary of solution **benefits**

More information



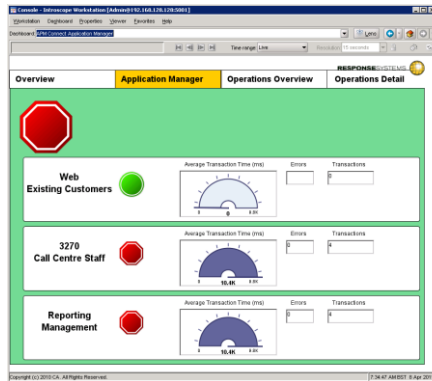
the changing world of APM



the fundamental demands are unchanged

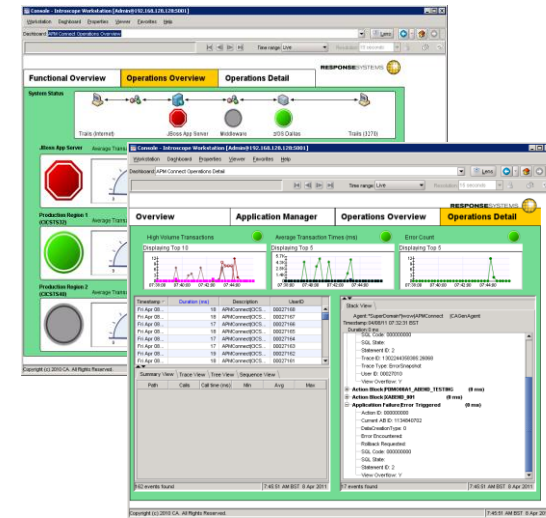
Service Assurance – is everything ok?

For ICT and Business owners – is the functionality I am responsible for being delivered?



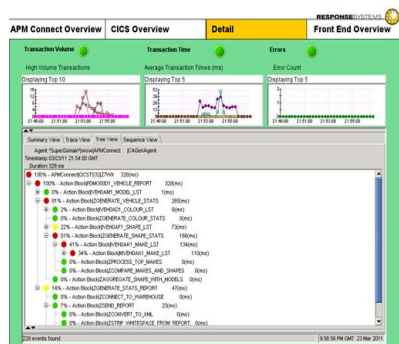
Triage – where are my problems?

Avoid the blame-game - quickly identify exactly where in the application stack the problems exist – so they can be remedied



Performance – can I get more from my resources?

Identifying hotspots and bottlenecks within large and complex applications can unlock significant cost savings

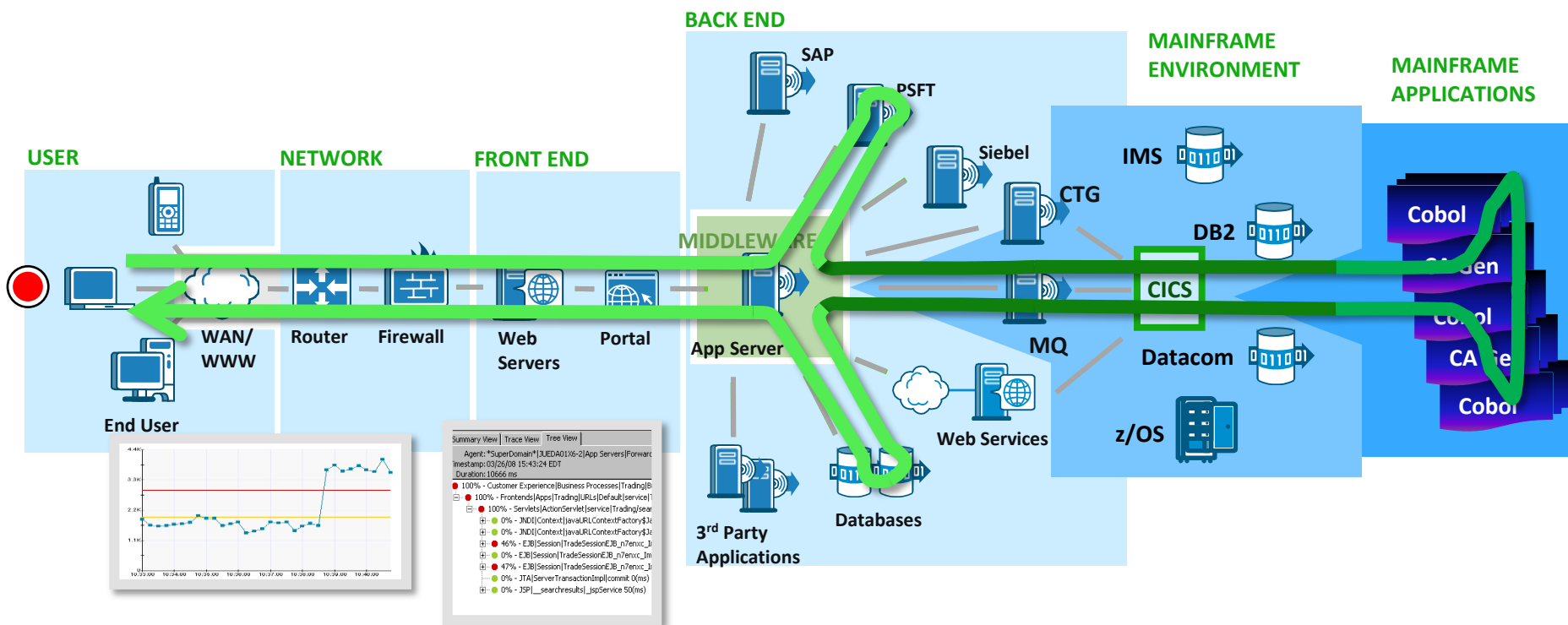


APM demands driven by application complexity

Applications are becoming more complex

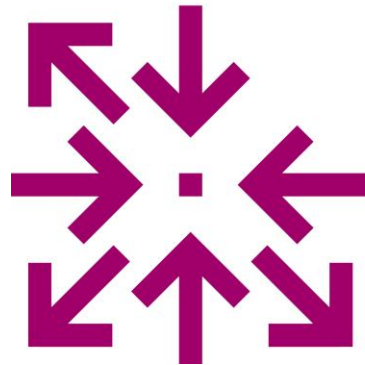
Identification of where problems lie is now much more difficult

The ability to rapidly identify the where the problem is located is now critical to any remediation.



APM capability must match application complexity

“The gulf that has historically divided mainframe systems management and distributed systems management at most IT organizations is extremely problematic when it comes to maintaining the health of the kind of multi-tier applications widely in use today...”



...by offering a practical way to bridge this gulf, tools that collect and assess information from multiple platforms can help IT organizations do a better job of ensuring optimized service levels for these multi-tier applications.”

Bill Malik, Research Director, Gartner

Source: CA Press Release, October 2009



business delivery is application focused

“While most IT operations teams still regard the management of infrastructure components (virtual and real servers, networks, and storage farms) as their core competency, they have increasingly come to understand that these elements deliver **value to the business only in the context of the applications they support...**



...Business decision makers have, in fact, been the most enthusiastic advocates of application-centric IT operations management.. ..to them, the most important and visible element that IT delivers with regard to **business process execution is the predictable and effective flow of application-based transactions.**“
Will Cappelli, Research VP, Gartner

Source: Gartner Group, 2010
Magic Quadrant for Application performance Monitoring
Gartner RAS Core Research Note G00173116, Will Cappelli



the evolution of enterprise APM

Early monitoring software (APM 1.0)

- Platform centric – rather than cross-platform
- Infrastructure focused – rather than application focused
- Heavy footprint – see everything, but at a significant overhead
- Eg: BMC TriTune, Compuware STROBE, IBM Omegamon/Expediter

APM2.0 overcame these to meet market demands

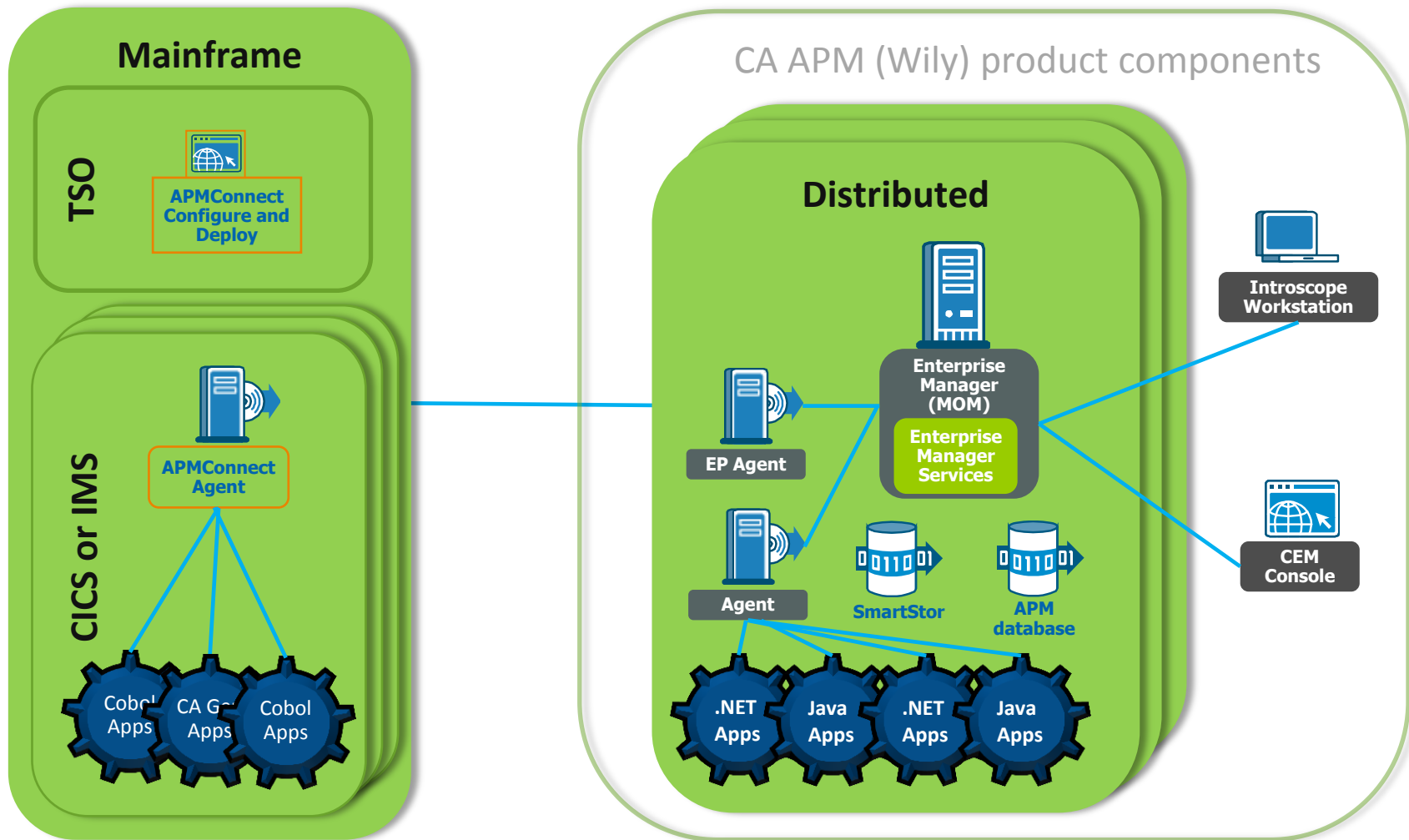
- **Wily** largely defined and then led this new market for APM2.0
- A single perspective over multiple application platforms
- APM that is Applications rather than infrastructure focused
- A footprint that enables always-on – providing proactive visibility
- **APMConnect is APM2.0 capability for mainframe applications**



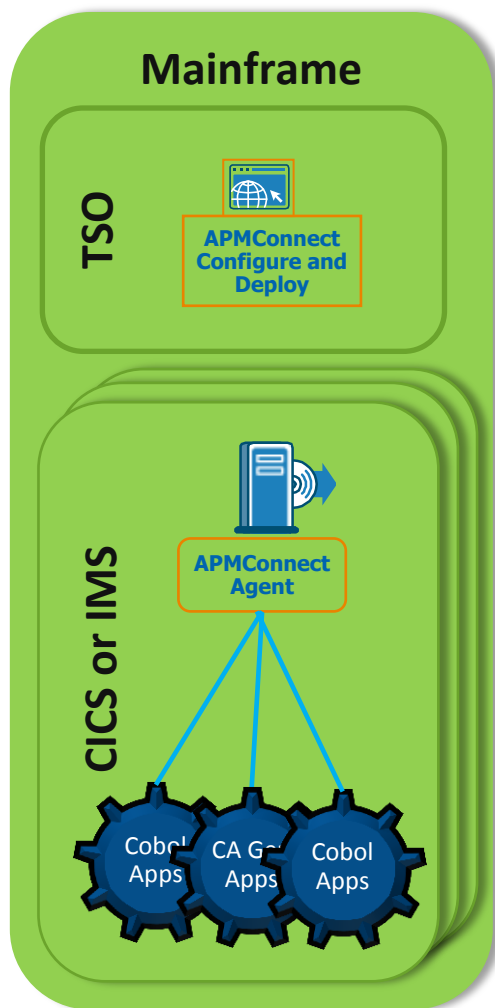
so how does APMConnect work?



APMConnect solution architecture



APMConnect solution architecture



APMConnect Configure and Deploy

- Rapid deployment to CICS/IMS regions
- Manage Transaction Trace filtering
- Monitors APMConnect CICS/IMS Agents

APMConnect CICS/IMS Agent

- Integrates with COBOL/CA Gen transactions
- Configured to dynamically filter by
 - ☐ transaction code
 - ☐ execution duration thresholds
 - ☐ transaction failure thresholds
- Sends data across to CA APM (Wily)



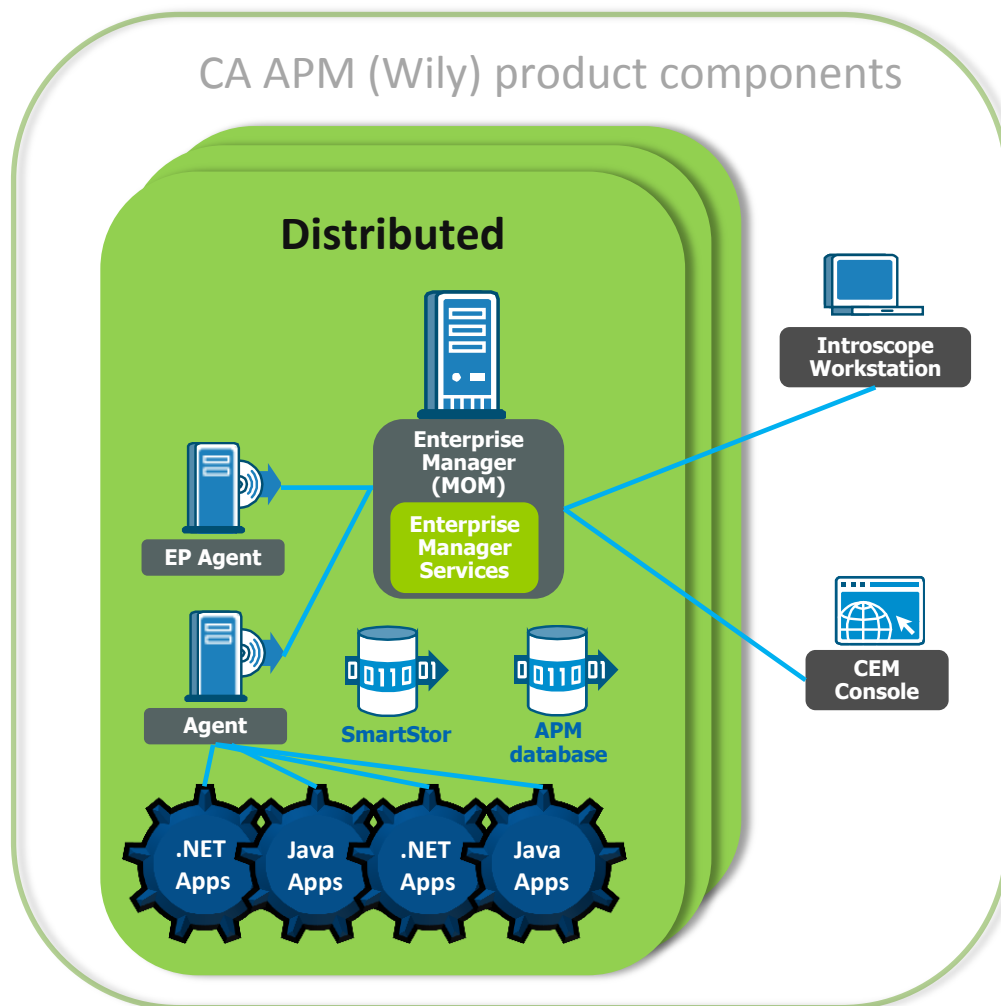
APMConnect solution architecture

CA APM (Wily)

- Out of the box
- Known and proven
- APMConnect plugs in through EP Agent
- Seamless and instant

Introscope & CEM

- All the powerful features of world-class APM
- Now with the same deep dive for mainframe apps



key product features



Historical Query Viewer - Introscope Workbench [Admin@localhost:5001]

Workstation Edit Trace Properties Help

Events Query

Query: cbs1

Type	Domain	Host	Process	Agent	Timestamp	Duration(ms)	Description	UserID	Total Duration (ms)
T	"SuperDomain"	VM-W7Pro64-Base	APMConnect	CAGenAgent	08/08/2012 6:55:54 PM	103424	APMConnect/CICSUSE...	PUBLIC	103424

Summary View Trace View Tree View Sequence View

Agent: "SuperDomain" \ VM-W7Pro64-Base \ APMConnect \ CAGenAgent

Timestamp: 08/08/12 18:55:54 EST

Duration: 103424 ms

100% - APMConnect/CICSUSEY/CBS1 103424(ms)

- 100% - COBOLJLOY80321 103424(ms)
 - 0% - COBOLJLOY90053 47(ms)
 - 0% - COBOLJLOY90051 7(ms)
 - 0% - COBOLJLOY90021 7(ms)
 - 0% - COBOLJLOY90001 0(ms)
 - 0% - COBOLJLOY90002 0(ms)
 - 0% - COBOLJLOY80014 281(ms)
 - 0% - COBOLJLOY40006 0(ms)
 - 0% - COBOLJLOY20015 0(ms)
 - 0% - COBOLJLOY20044 19(ms)
 - 0% - COBOLJLOY20044 19(ms)
 - 0% - COBOLJLOY20026 1(ms)
 - 0% - COBOLJLOY80403 204(ms)
 - 100% - COBOLJLOY80324 103095(ms)
 - 0% - COBOLJLOY50453 5(ms)
 - 0% - COBOLJLOY20014 0(ms)
 - 0% - COBOLJLOY80014 326(ms)
 - 0% - COBOLJLOY40006 0(ms)
 - 0% - COBOLJLOY20015 1(ms)
 - 0% - COBOLJLOY20044 117(ms)
 - 0% - COBOLJLOY30287 4(ms)
 - 0% - COBOLJLOY30287 5(ms)
 - 0% - COBOLJLOY30287 101(ms)
 - 0% - COBOLJLOY30287 2(ms)
 - 0% - COBOLJLOY20044 19(ms)
 - 0% - COBOLJLOY20026 0(ms)
 - 0% - COBOLJLOY80403 166(ms)
 - 0% - COBOLJLOY30281 19(ms)

1 events found

09/08/2012 12:16:59 A

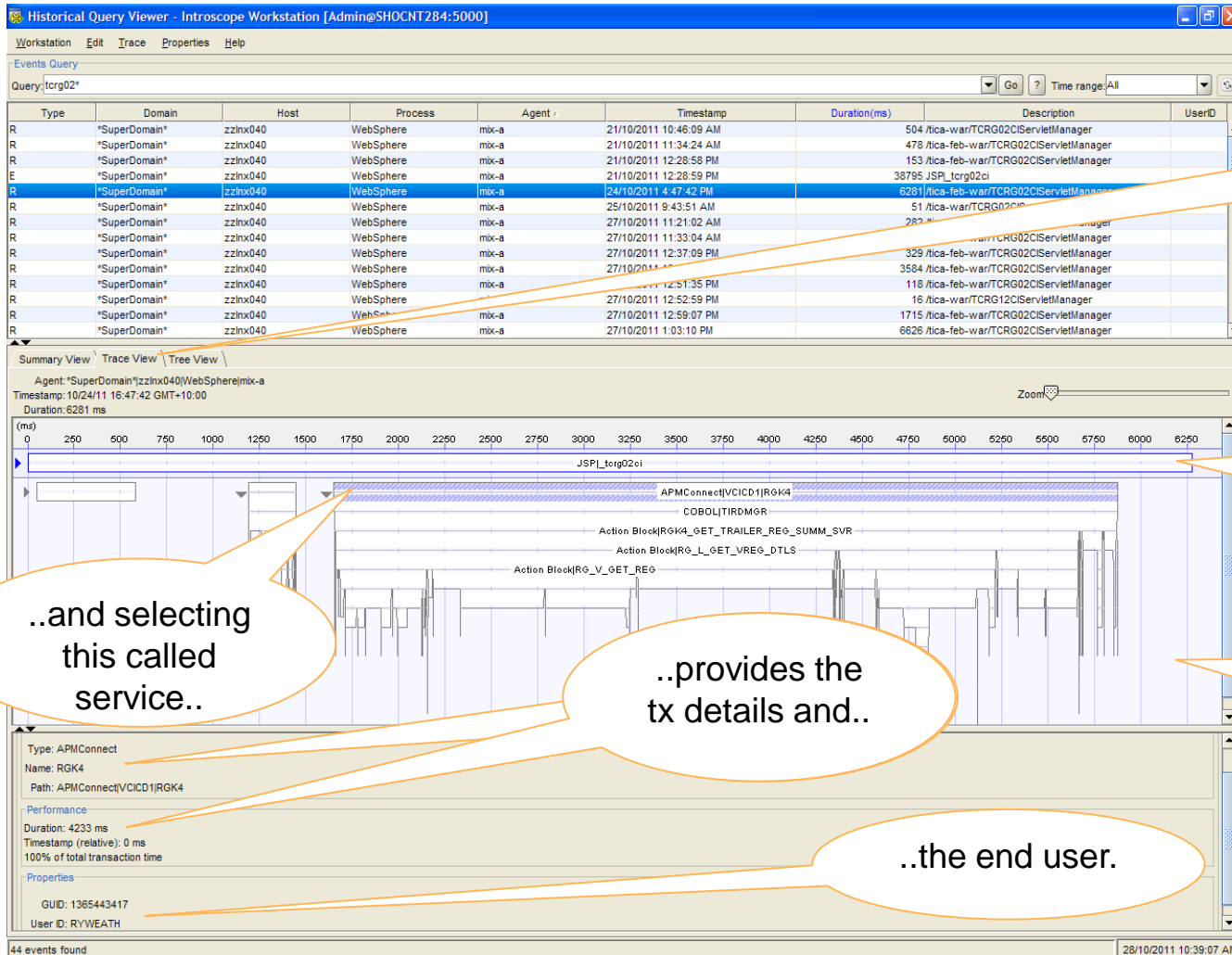
..traffic lights
for execution
highlights

..and the
elapsed time
in ms

..see the call
stack
exploded

..instant
visibility to
where time is
spent.

visibility across technology platforms



Drill down to the CICS region

```
.. and see them
   aggregated
```

...means you can quickly identify performance hotspots in your applications.

...how many
times each was
called

...and the total
execution time
for all calls

Timestamp	Duration(ms)	Description	UserID	Total
25/09/2012 8:07:56 PM	20	APMConnect[CICSTS32]ZTWX	00002318	20
25/09/2012 8:07:52 PM	6929	APMConnect[CICSTS32]ZTWZ	00001636	6929
25/09/2012 8:07:52 PM	3911	APMConnect[CICSTS32]ZTWZ	00000845	3911
25/09/2012 8:07:52 PM	1947	APMConnect[CICSTS32]ZTWZ	00000136	1947
25/09/2012 8:07:52 PM	12704	APMConnect[CICSTS32]ZTWZ	00000108	12704

Path	Calls	Call time (ms) T	Min	Avg	Max
Action Block\PROCESS_DATA_RECORDS	4	20358	1925	5089	7728
Action Block\DVEH30F1_COLOUR_FOR_VEHICLE_GET	4	1245	0	311	1240
Action Block\DVEH12F1_MODEL_TYPE_FOR_VEH_GET	4	788	0	197	786
Action Block\DVEH20F1_SHAPE_FOR_VEHICLE_GET	4	783	0		781
Action Block\DVEH10F1_MAKE_FOR_MODEL_GET	4	769	0		
Action Block\DVEH11F1_MODEL_GET	4	760	0	190	
Action Block\DVEH30E1_COLOUR_FOR_VEHICLE_GET	4	496	16	124	
Action Block\DVEH01F1_VEHIHICLE_FOR_PLATE_GET	4	148	0	37	143
Action Block\DVEH01F1_VEHIHICLE_FOR_PLATE_GET	4	35	2	8	14
Action Block\LVEH0AE1_SHAPE_GET	4	32	0	8	31
Action Block\MVEH0AC1_COLOUR_GET	8	22	0	2	17
Action Block\MVEH0AC1_COLOUR_GET	8	14	0	1	14
Action Block\LVEH0AC1_COLOUR_GET	8	11	0	1	11
Action Block\DVEH30E1_COLOUR_LST	1	10	10	10	10
Action Block\DVEH11B1_MODEL_GET	4	6	0	1	3
Action Block\DVEH30B1_COLOUR_GET	8	6	0	0	2
Action Block\DVEH20E1_SHAPE_LST	1	5	5	5	5
Action Block\DVEH20B1_SHAPE_LST	4	5	1	1	2
Action Block\MVEH0AK1_MAKE_LST	4	4	0	1	4
Action Block\MVEH0AK1_MAKE_LST	4	4	0	1	4
Action Block\MVEH0AK1_MAKE_LST	4	3	0	0	3
Action Block\MVEH0AK1_MAKE_LST	1	2	2	2	2
Action Block\MVEH0AK1_MAKE_LST	1	1	1	1	1
Action Block\MVEH0AK1_MAKE_LST	1	1	1	1	1
Action Block\MVEH0AK1_MAKE_LST	4	1	0	0	1
Action Block\MVEH0AK1_MAKE_LST	1	1	1	1	1
Action Block\MVEH0AK1_MAKE_LST	4	1	0	0	1
Action Block\MVEH0AK1_MAKE_LST	1	0	0	0	0
Action Block\MVEH0AK1_MAKE_LST	1	0	0	0	0
Action Block\MVEH0AK1_MAKE_LST	1	0	0	0	0
Action Block\MVEH0AK1_MAKE_LST	1	0	0	0	0

batch processing is correlated

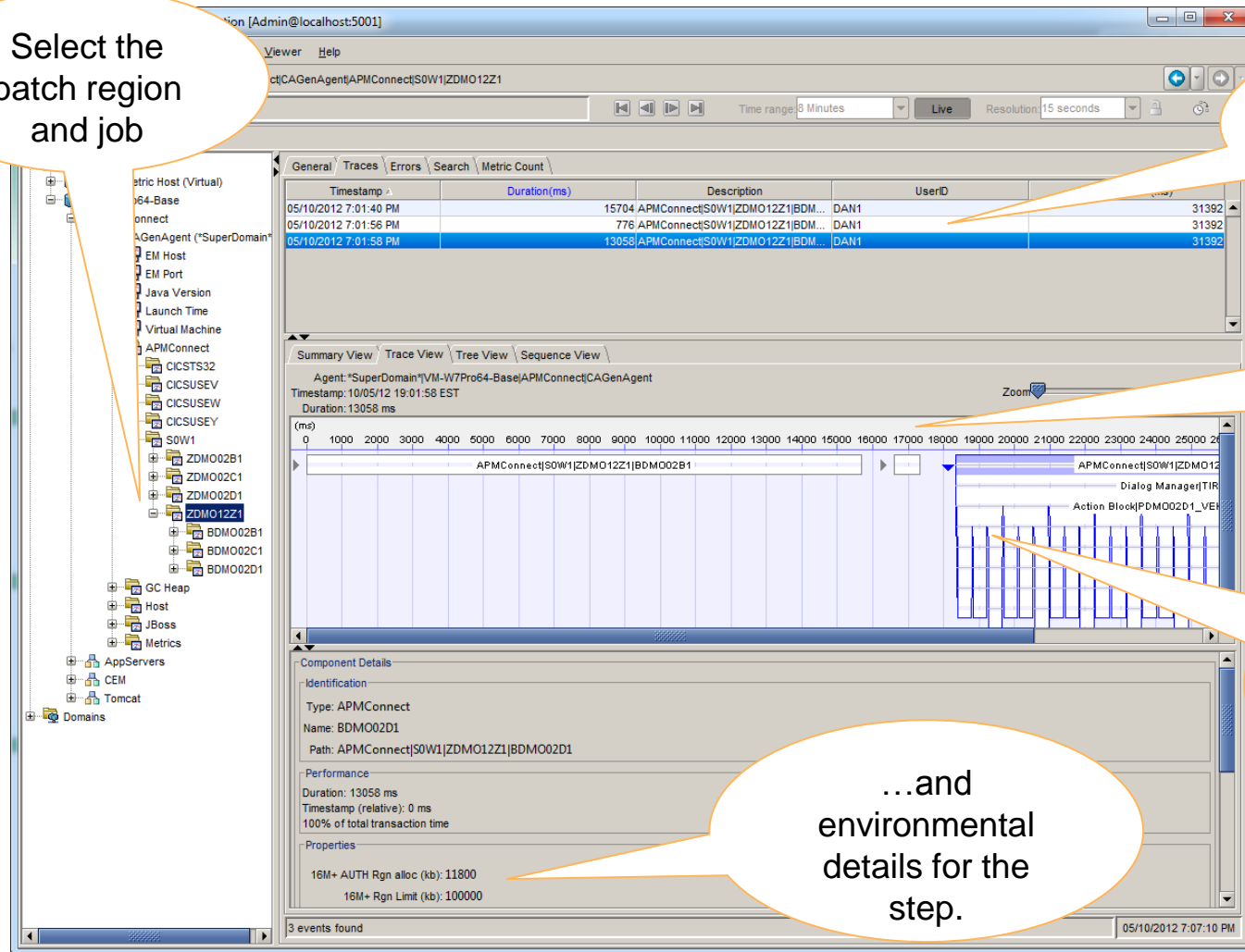
Select the batch region and job

...and see all of the batch steps within the job

... with the steps within the job correlated on the timeline

...and the detail for each batch step available on drill down

...and environmental details for the step.



when things go wrong

Historical Query Viewer - Introscope Workstation [Admin@SHOCONT284:5000]

Workstation Edit Trace Properties Help

Events Query

Query: type:errorsnapshot

Type	Domain	Host	Process	Agent	Timestamp	Duration(ms)	Description
E	"SuperDomain"	SHOCONT284	APMConnect	CAGenAgent	26/10/2011 4:19:56 PM	14267	APMConnect\VCICD1\RGK3
E	"SuperDomain"	SHOCONT284	APMConnect	CAGenAgent	27/10/2011 8:36:34 AM	287	APMConnect\VCICD1\JTL4
E	"SuperDomain"	SHOCONT284	APMConnect	CAGenAgent	27/10/2011 8:38:49 AM	62	APMConnect\VCICD1\JTL4
E	"SuperDomain"	SHOCONT284	APMConnect	CAGenAgent	27/10/2011 8:54:06 AM	91580	APMConnect\VCICD1\JTL4
E	"SuperDomain"	SHOCONT284	APMConnect	CAGenAgent	27/10/2011 3:44:35 PM	34065	APMConnect\VCICD1\JDLB1
E	"SuperDomain"	SHOCONT284	APMConnect	CAGenAgent	27/10/2011 3:45:16 PM	6144	APMConnect\VCICD1\JDLB1
E	"SuperDomain"	SHOCONT284	APMConnect	CAGenAgent	27/10/2011 3:46:02 PM	26439	APMConnect\VCICD1\JDLB1
E	"SuperDomain"	SHOCONT284	APMConnect	CAGenAgent	27/10/2011 3:46:35 PM	85973	APMConnect\VCICD1\JDLB1
E	"SuperDomain"	SHOCONT284	APMConnect	CAGenAgent	27/10/2011 3:48:12 PM	234866	APMConnect\VCICD1\JDLB1
E	"SuperDomain"	zzhx040	WebSphere	mix-a	19/10/2011 10:48:31 AM		
E	"SuperDomain"	zzhx040	WebSphere	mix-a	19/10/2011 10:48:32 AM	11	Backends\stmngd1 ora-essda-devi-1521 (Oracle DB)
E	"SuperDomain"	zzhx040	WebSphere	mix-a	19/10/2011 10:48:32 AM	13	Backends\stmngd1 ora-essda-devi-1521 (Oracle DB)
E	"SuperDomain"	zzhx040	WebSphere	mix-a	19/10/2011 10:48:32 AM	11	Backends\stmngd1 ora-essda-devi-1521 (Oracle DB)
E	"SuperDomain"	zzhx040	WebSphere	mix-a	19/10/2011 10:48:33 AM	13	Backends\stmngd1 ora-essda-devi-1521 (Oracle DB)

Stack View

Agent: "SuperDomain"SHOCONT284\APMConnect\CAGenAgent
Timestamp: 10/27/11 15:48:12 GMT+10:00
Duration: 234866 ms

Error at 15:48:12.732 (27 Oct 2011)

- APMConnect\VCICD1\JDLB1 (0 ms)
 - DataCreationType: 0
 - Trace ID: 1319694730949:4740
 - Trace Type: ErrorSnapshot
 - User ID: WEBAPPD
- COBOL\TIRDMGR (0 ms)
- Action Block\JDLB1_GET_DL_RENEWAL_FOR_WEB_SVR (1 ms)
- Action Block\JDLB1_GET_DL_RENEWAL_FOR_WEB (2551 ms)
- Action Block\CTRL0310_GET_AVAIL_DL_RINWL_TERMS (4460 ms)
- Action Block\CTRL0249_DET_SMRTCRD_EXPIRY_DATE (102935 ms)
- Action Block\CTRL1205_SYSTEM_PARAMETER_GET (102935 ms)
- Action Block\ICBD1201_SYSTEM_PARAMETER_GET_S (102936 ms)
- Action Block\ICBD1201_SYSTEM_PARAMETER_GET (102936 ms)
- Action Block\TCBD1021_SYSTEM_PARAMETER_O (102937 ms)
- External Action Block\ICBD1131 (102938 ms)
- Action Block\CCBD1032_MAPPER_ERROR_HANDLER (201815 ms)
 - Action ID: 000000000
 - Current AB ID: 975405999
 - DataCreationType: 0
 - Error Message: View Overflow (Statement #84)
 - SQL Code: 000000000
 - Statement ID: 84
 - View Overflow: Y

285 events found

28/10/2011 10:33:10 AM

Jump into the error snapshots

.. select the instance of interest

.. review the call stack that executed

.. and the action block & statement in error.



what makes APMConnect unique?



market leading benefits and features

- ✓ **Pro-active mainframe application monitoring**
Minimal footprint enables always-on monitoring
- ✓ **Performance analysis on consolidated transactions**
Identify hotspots in your application to deliver cost savings
- ✓ **Sub-transactional visibility in real-time**
See the execution path inside the transaction, as it occurs
- ✓ **End-to-end cross-platform transaction integration**
Follow your business transaction across each technical platform
- ✓ **Insight into intensive Batch processing**
See each batch step correlated across complex batch jobs
- ✓ **Non-intrusive to executing applications**
No source code changes, recompiles, relinks or rebinds needed



additional features for APMConnect for CA Gen

✓ **Application monitoring in a CA Gen context**

Monitoring that gives developers information to instantly act on
Precise error diagnostics for resolving failure incidents rapidly
No other product provides this real-time CA Gen context

✓ **Cross-platform support for CA Gen deployment**

Drill down inside executing CA Gen mainframe transactions
See inside executing CA Gen windows client transactions
Integrate with Java and .NET proxy services across platforms



thank you

For further information

- www.response-systems.com/solutions/apm
- performance@response-systems.com

To discuss a software trial in your environment

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questions

APMConnect from Response Systems

One integrated APM over every platform

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