



IBM Software Group

Relationship between
SOA – EDA – BI – BAM – BSM ...
A perspective from the field

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Some experience from the field

- **Events** → **start Services, start processes or perform intelligent routing**
- **Events** → **may use services to perform event processing**
- **Services** → **used for event detection, event capture and event processing**
- **Services** → **generate or consume events**
- **Services** → **wait for and react on (expected) events**

- **Today - Events**
 - Are often stored
 - Captured by a human being or Generate Human Interaction/ Human activity
 - Are treated in dedicated and closed and proprietary systems (IT Monitoring, SCADA Systems, ...)

Situation Today and Tomorrow

Today

- **Heterogeneous Environment across the industries**
 - Some have Messaging Middleware, some have not
 - Some have started in service orientation, some have not
 - Most of them have BI Systems and BWH
 - Most of them do not have BSM Systems
 - They all store Data

Tomorrow

- **Still heterogeneous environment, but new requirements**
 - Flexible and easier adaptable processes
→ SOA
 - Apply BI principles on Event Streams in combination with stored data.
→ BAM + Interaction and Event Generation
 - Link between infrastructure monitoring and Business Processes
→ BSM
 - Vertical integration including sensor and actor networks, business systems and infrastructure
→ More and More Events

Key Question – What is the added value. Or why should the customer change the environment?

SOA and EDA (extract)

■ Similarities

- Both address Business Problems and Link between Business and IT
- Both support the principle of separation of concerns
- Both are architectural styles
- Both align with a lifecycle (MADM) and a governance model
- Both can be implemented separately although the combination seems to be promising
- ...

■ Differences

- SOA is about services and EDA about events
- SOA is loosely coupled and EDA is decoupled – but both need kind of trusted relationships
- SOA is closed to unforeseen input and executed in a linear way
- SOA benefits apply good to changing business environments. Event Processing Benefits also apply to stable business environments
- SOA is typically a request /reply model. EDA is typically a fire and forget model.
- ...

Evolution of Business (Activity) Monitoring

	Traditional Dashboards	Active Dashboards
Source	DWH, BWH	Multiple
Latency	Acceptable	Real-time and history
Architecture	Proprietary	Open and service oriented
Interaction	Static	Interactive and dynamic
User	Dozens to hundreds	Hundreds to thousands (role based and personalized)
Usage	Strategic (Data centric reports, OLAP)	Tactical and Operational (process centric)

Shows, what happened

No real time operational data or solution scenarios.

Flexible, role based, easily adaptable and directly linked to the processes and instances of processes. Supports in problem determination and solution finding.

BAM Today is still typically – store event and then process data.

Additionally, BSM links various infrastructure related monitoring aspects together and relates it to Business Processes

Conclusion

- **EDA, SOA, BAM, BSM can all bring additional value to the customers and value has to be proven before being adopted by the customers.**
- **Similar to SOA, you probably need to define entry points to EDA. BAM is the most promising entry point for most of the customers today. But need to resolve the problem on how to instrument the Systems to generate the events (in a standard format). RTE (Real Time Enterprise) might be another good early candidate.**