



Gartner Application Integration & Web Services Summit 2004

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The Event / Reason for Application Integration

Massimo Pezzini, a well-known Gartner Analyst in the Application Integration arena, has introduced the event. There were more than 530 participants from more than 40 countries all around the world. Distribution among sectors was like following: Financial Services 33%, Public Sector 17%, Telecom 15%, Manufacturing 14% and the rest by other sectors.

Remarkable is the strong interest from the Public Sector. Will eventually e-Governance come to age?!

Massimo Pezzini stressed the driving reasons for Application Integration (using Web Services or not does not matter):

- Regulatory compliance like Basel 2, IAS (International Accounting Standard), Sarbanes-Oxley Act
- B2B collaboration with trading partners and e-marketplaces based on standards like UUCnet
- Mergers and acquisitions (still a topic!)
- Higher quality of service (customer view, data quality, better integration of new apps)
- Implement self service portals for customer and employees

Application Integration accounts up to 35 percent of the total cost of application design, development and maintenance! The crucial issue is how to integrate, not whether to integrate. There is a consensus that integration is vital to most modern business strategies, but there is uncertainty about how best to do it.

Application Integration Design Patterns

Application integration involves one or more of three design patterns:

- Data Consistency: get multiple application systems (in many cases controlled by disparate business units) exchange their source data items to consolidate the key business facts. Data consistency is an issue wherever there are two or more databases holding information on the same subject.
- Multistep Process: involves a sequence of related activities, each of which is conducted by an application system or person. Each instance of a business process, such as a purchase order or an insurance claim, has a life cycle that consists of steps that take seconds, minutes, hours or days.
- Composite Applications: is a software assembly that implements business functions based on available IT functions implemented in various application, orchestrated and glued together to build a new composite application.

Application Platform Suites (APS)

In the Demonstration Forum almost all major vendor of EAI and Application Servers demonstrated their newest products. Application Integration Platforms and Application Servers emerge to so called Application Platform Suites (APS). Many Integration Platforms have their own application servers included (e.g. SeeBeyond, SAP Netweaver), as classic Application Servers like BEA extend their product to cover integration technologies.

In the future we will have to deal with several application server vendors providing their own portal, integration and workflow engines.



Service Oriented Architecture (SOA), Service Oriented Business Applications (SOBA)

Based on Web Services the concept of Service Oriented Architecture has infected all APS vendors! There is no vendor who does not claim to provide SOA support. The next wave of SOA enabled products will probably be issued by the packaged application market with vendors like SAP, Siebel and Ariba. Gartner created a new name for SOA enabled business applications; they call it SOBA, Service Oriented Business Applications.

Business Process Management (BPM)

All major vendors offer enhanced Business Process Management facilities (e.g. BEA with its Workshop IDE, TIBCO acquired staffware workflow software). BPM acts as an umbrella also for trading partner integration in B2B scenarios and for workflow approaches with human intervention based on web based business task management applications. Standards like BPEL (Business Process Execution Language) are still evolving and lack maturity. It will take another few years to establish it as a sound methodology for business process design and operations based on BPM, SOA and Event Driven Architectures (EDA).

Business Activity Monitoring (BAM)

A well designed BPM environment will help to yield best value for Business Activity Monitoring (BAM). BAM has an overlap with traditional Business Intelligence (BI) technologies and this may be another area for harmonization and consolidation of vendor products and future corporate IT architectures. BAM support can be found in most major vendor products.

Web Services

Many of the above mentioned initiatives and new technologies rely on Web Services (WS). The jungle of Web Service Standards is a nightmare, and standardization bodies like OASIS and W3C have parallel activities producing incompatible standards and make it difficult to get an overview. Vendor products will have to show which standards play a major role for upcoming application and architecture designs. SOAP over HTTP using WSDL (Web Service Definition Language) as interface specification build a solid set of basic standards, but are by far not enough to boost broad customer acceptance.

EAI is not dead

Beside all new approaches, technologies, standards and products one thing should not be underestimated. Application Integration is still a very important domain. Heterogeneous application topologies require a careful balance between traditional EAI application patterns and SOA based strategies.

As an example reliable messaging, a typical building block of EAI, has proven its maturity and is a must in business critical application integration. Recently standards for Web Services for Reliable Messaging have been announced by both OASIS and W3C. But it will take another two to four years until this technique will be widely accepted and deployed.

Another issue is data centric application integration. ETL (Extract Transform and Load) products will be merged into Application Platform Suites (e.g. SeeBeyond) to get seamless database or master data integration. Web Services are by design and technology not very well suited to cover this area.



Security

Security gets more and more important. Missing security standards have also been one of the reasons why the use of Web Services in industry is not picking up as fast as expected. With the recent standardization on WS-Security this problem might partially be solved. Nevertheless there is still a strong need for further security standards and market proven implementations.

Identity Management will play an important role in corporate IT architecture. PKI (Public Key Infrastructure) managing certificates for trading partners and employees, Role based Privilege Management and LDAP based directories are building blocks for a corporate user management initiative. Their integration into EAI & SOA will be the challenge for the near future.