



The Middleware expertise

**Capitalize on asynchronous
communication systems properties
to integrate distributed enterprise data and applications**

ScalAgent Distributed Technologies is a start-up company issued from the cooperation between university (INRIA, Institut National Polytechnique de Grenoble, Université Joseph Fourier-Grenoble) and Bull. From many years the ScalAgent team have gained considerable experience and developed advanced technology in the area of distributed applications deployed on large-scale networks.

These building blocks exploit the properties of asynchronous communication systems.

Mission

ScalAgent DT aims at being an independent software vendor in the area of asynchronous middleware. ScalAgent DT develops, distributes and supports middleware components that are adapted to the construction of large-scale distributed applications in the Internet/Java world.

- *ScalAgent DT* is the designer of the **JORAM MOM**, an open-source alternative to IBM WebSphere MQ, distributed through the OW2 channel.
- ScalAgent DT is, beside CNES, the initiator of the definition of the CCSDS MAL space standard. ScalAgent DT has also designed and provided a reference implementation of this standard **MAL/JORAM**.
- ScalAgent DT has achieved the Econnectware™ RFID middleware component for Tagsys RFID, based on his **Mediation Suite** framework.

Asynchronous Middleware

The use of Internet as a general purpose communication system is growing very fast in all sectors of activity. This evolution allows the deployment of new applications characterized by a strong functional binding between software components running in a weakly-coupled distributed environment.. Asynchronous middleware, build on top of a MOM (*Message Oriented Middleware*) is the cornerstone to meet these application requirements.

- In SOA (*Service Oriented Architecture*), the MOM allows incremental development of new added-value services through the integration of pre-existing services.
- In M2M (*Machine to Machine*) environments, the MOM is the vehicle to integrate multiple forms of remote equipments and smart appliances, that run their own embedded intelligence, with enterprise information systems.

The design and development of asynchronous systems is the core business of *ScalAgent DT*. We can help you to design and deploy integration solution suited to your own requirements, by operating the advanced properties of the open-source JORAM MOM and using smart mediation services.

Markets

ScalAgent DT offering has been designed to answer the challenges of emerging market segments concerned by the development of integration solution on large-scale networks :

- Telco and space
- Energy and smart building
- RFID

Products and Services

JORAM

JORAM is the leading open source implementation of the JMS™ messaging specification worldwide. Since 2008, JORAM integrates the evolving functions of the AMQP protocol specifications (currently v0.9.1).

JORAM greatly benefits from an agent-based truly distributed architecture. This cutting-edge technology provides unique properties to answer the needs of scalable distributed architectures, enables load balancing and guarantees high availability and flexibility.

JORAM is today running in numerous operational environments where it is used in two complementary ways:

- as an autonomous Java messaging system to bind distributed applications running in heterogeneous environments (from J2EE to J2ME),
- as an asynchronous messaging component integrated within an application server.



Download JORAM at <http://joram.ow2.org>

Enterprise Information Bus

The distributed enterprise is facing the need of federating semi-autonomous systems within a global information system. This integration objective may take multiple facets such as application integration, data integration, or cooperation between independent sub-systems. All these forms of integration have common requirements that justify to share a common communication platform, that is called the **Enterprise Information Bus**.

Thank to its unique properties, the JORAM messaging system, complying with the JMS standard, meets all the requirements for an enterprise information bus. JORAM is a true open-source alternative to proprietary integration platform for the construction of functions such as:

- Interoperability between applications within the enterprise information system as well as with external systems.
- Implementation of a shared information system within the distributed enterprise.
- Collection of usage data for the supervision and overall administration of applications, equipments and business processes.

Mediation Suite

Data mediation is the process of collecting and processing usage data from networked devices to compute in real-time pertinent indicators and to deliver them to business applications. A key issue of the mediation process is the ability to collect and process data from remote heterogeneous sources (devices, gateways managing devices, industrial process supervision station, delocalized data base, business process, etc.).

A mediation solution is a software integration platform that allows pertinent indicators to be computed at the right place and the right time by collecting and processing usage data along the path from remote devices to business applications.



Data mediation is used today in numerous application domains such as:

- Supervision, crash detection and alarm management
- Remote maintenance and failure prevention systems
- Enterprise Resource Planning (ERP)
- Customer relationship Management (CRM)
- Pricing, billing, electronic banking and electronic transactions
- Analysis and report of usage and activity data.

ScalAgent DT has developed a mediation framework that provides basis components and toolset for the construction of the mediation infrastructure suited to a given application environment – from the collection of primary data to the delivery of pertinent indicators to business processes. This framework also allows the deployment of the mediation chain in an Internet environment to be automated and controlled.

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