

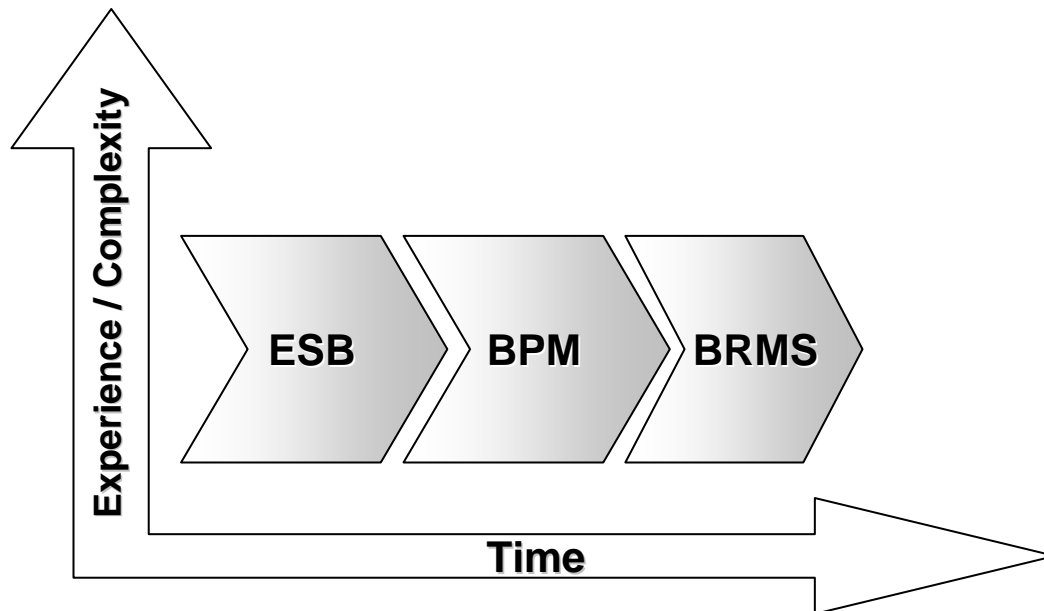
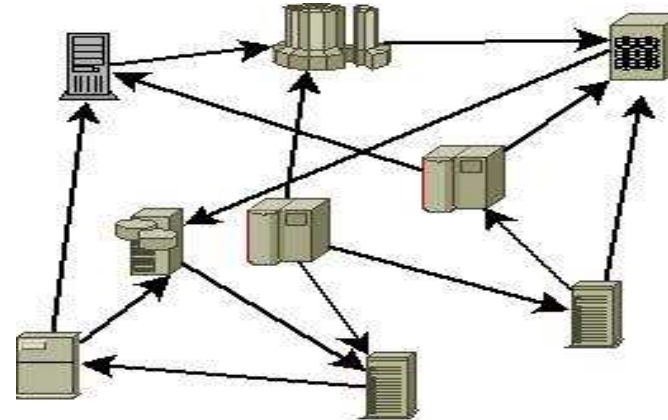


Version 3.0

Open Source SOA Universal Middleware

Many problems to solve

- Interoperability
- Standardization
- Governance
- Service Distribution
- Reusability



Evolution of solutions

- Enterprise Service Bus
- Business Process Management
- Business Rules Management Systems

Spagic 3.0 goals



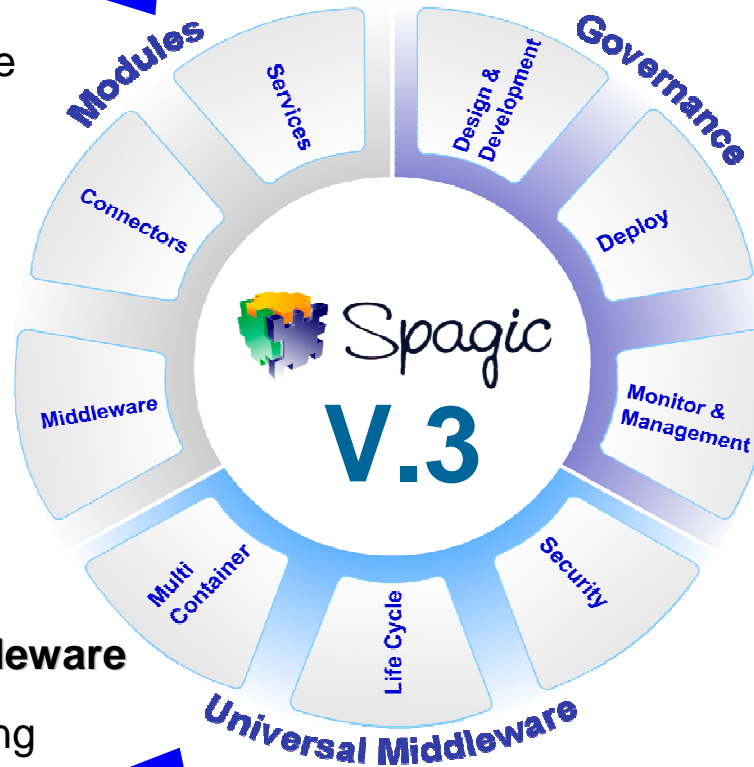
Open Source SOA Universal Middleware

OSGi objectives

- Principles SOA
- Modularization
- Components lifecycle management
- Dynamic Runtime

SOA objectives

- Encapsulation
- Loose coupling
- Contract
- Reusability
- Composability
- Autonomy
- Optimization
- Discoverability



OSGi Universal Middleware

- Application packaging
- Versioning
- Deployment
- Publication

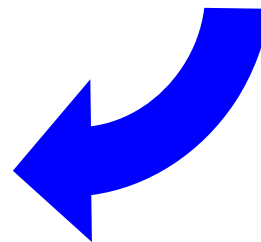
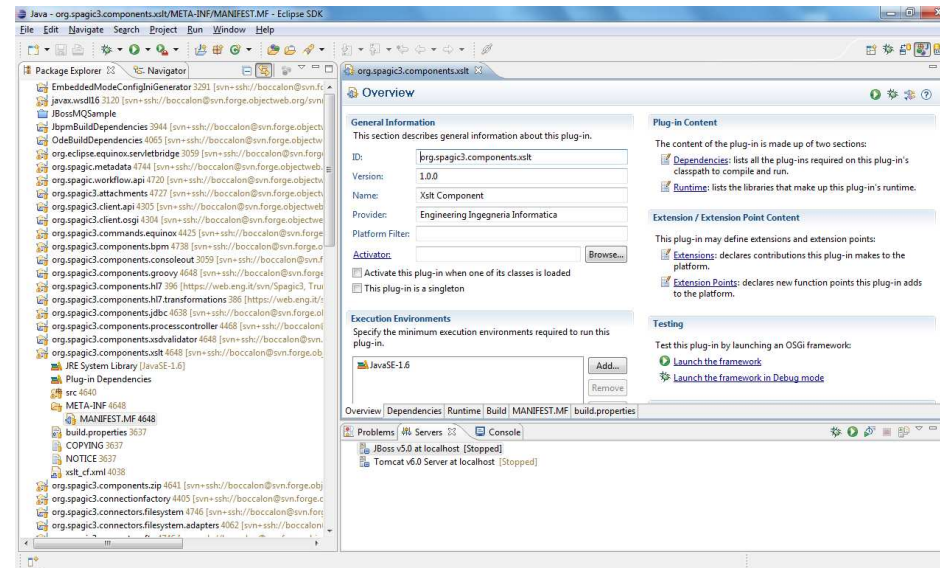
A platform for creating new services



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You can create new services that takes advantage of these features

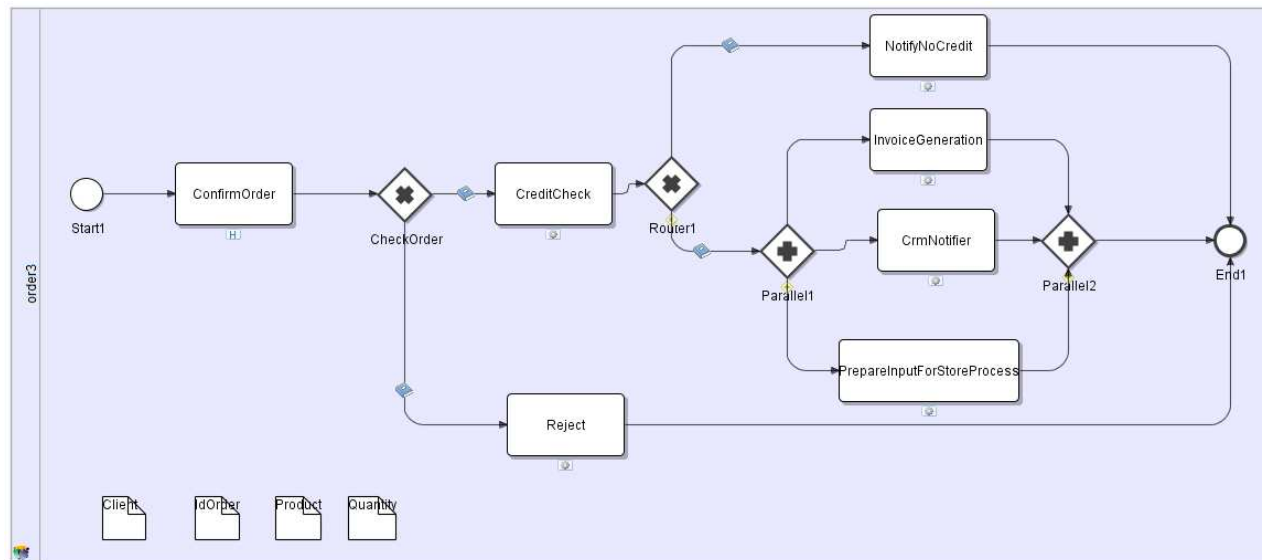
- ❑ Life-cycle management
- ❑ Monitoring
- ❑ Modularization
- ❑ Reusability
- ❑ Versioning
- ❑ Standardization



You can “compose” your services using orchestration engines to realize Integration processes and cooperation workflows

The design of processes is done through the BPMN standard :

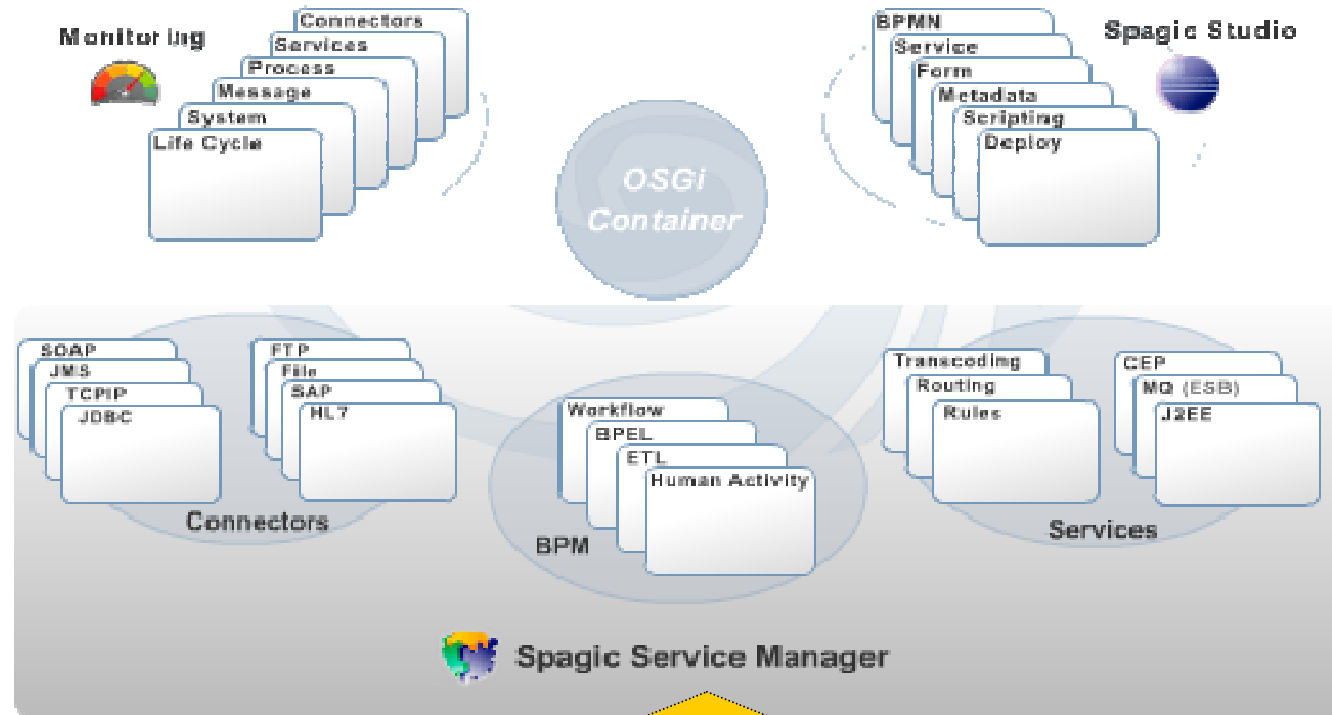
- ❑ Roles separation
- ❑ Opportunity to mix automatic and human services
- ❑ Process Monitoring



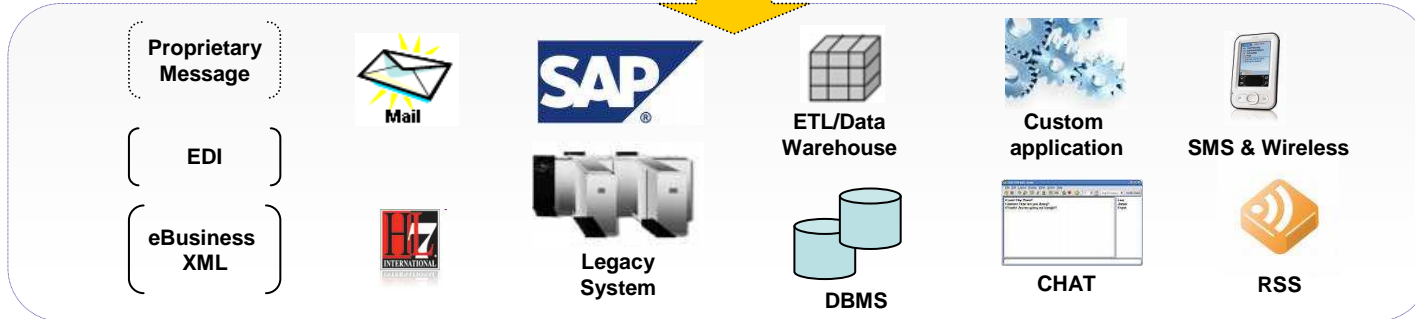
Architecture



Open Source SOA Universal Middleware



Cooperation with external environments

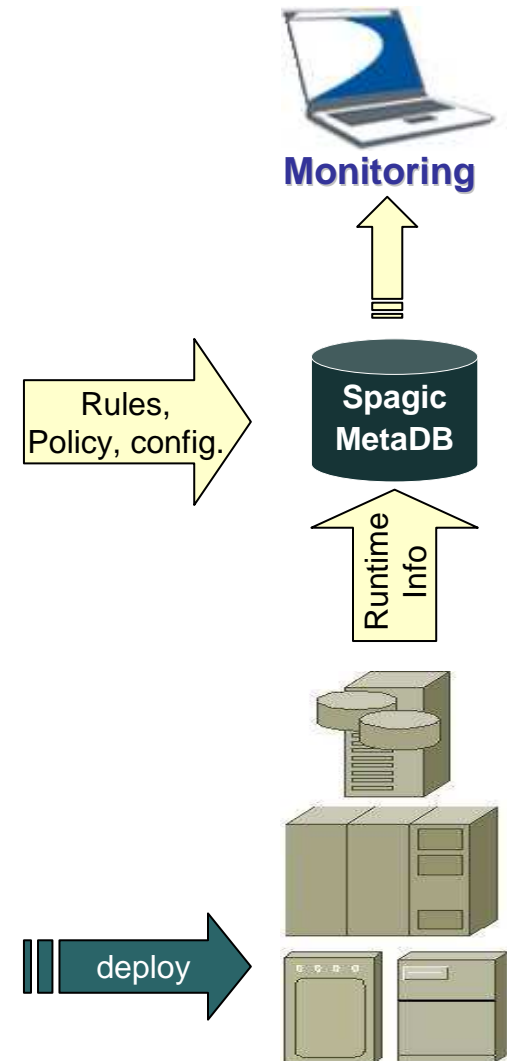
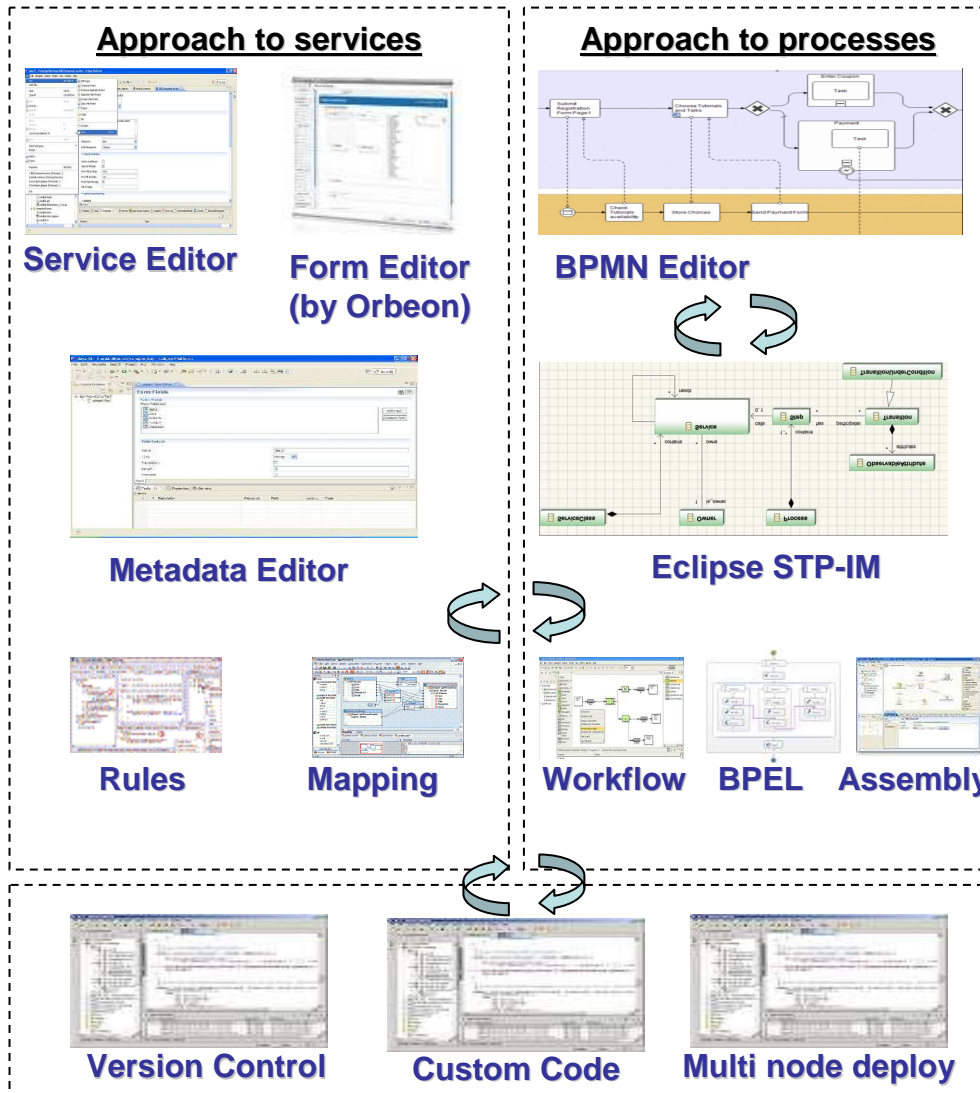


Governance / design, developer, deploy tool



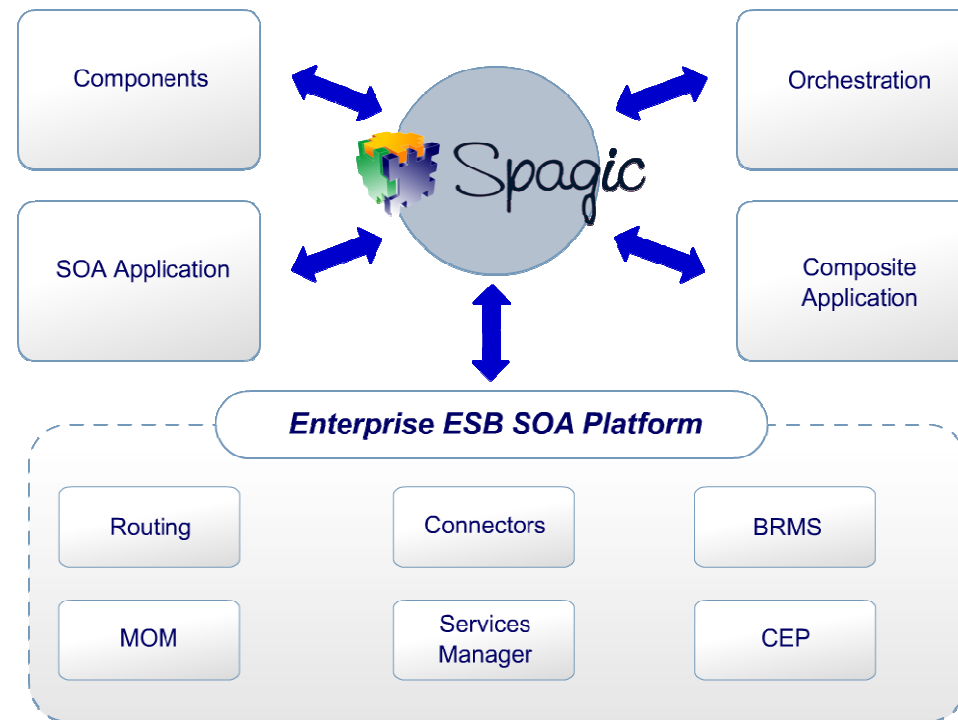
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- Logical design
- Logical & physical separation
- Technical Design
- Develop Deploy



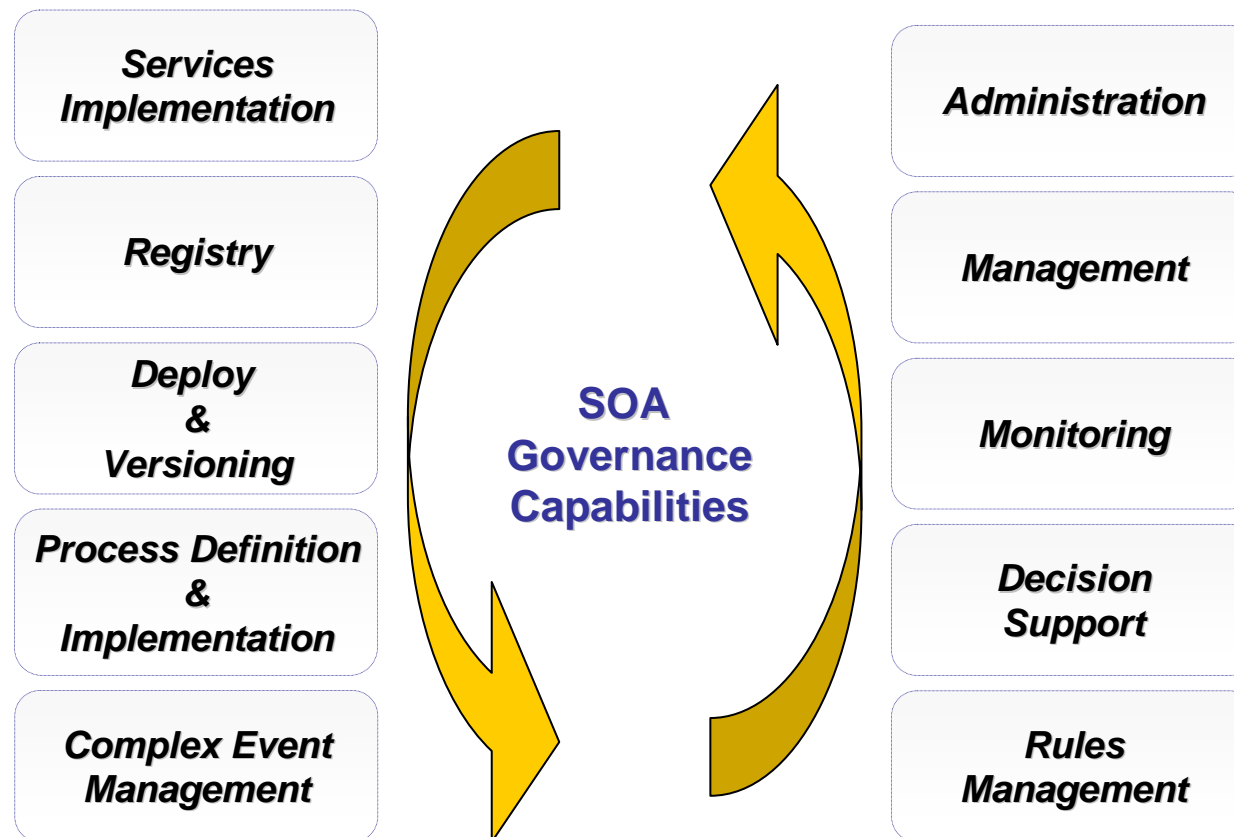
SOA requirements realized through modules – Enterprise SOA Framework

- ❑ Reusable components in different environments
- ❑ Applications adherent to the SOA paradigm
- ❑ Orchestration processes according to the WS/BPEL or workflow standard
- ❑ Applications based on services composition
- ❑ Enterprise SOA Platform, intended as a central node for the integration through ESB



Focused on the efficiency of all involved actors and resources, in order to:

- Meet the users' requirements
- Manage the direct and indirect relations within the SOA ecosystem



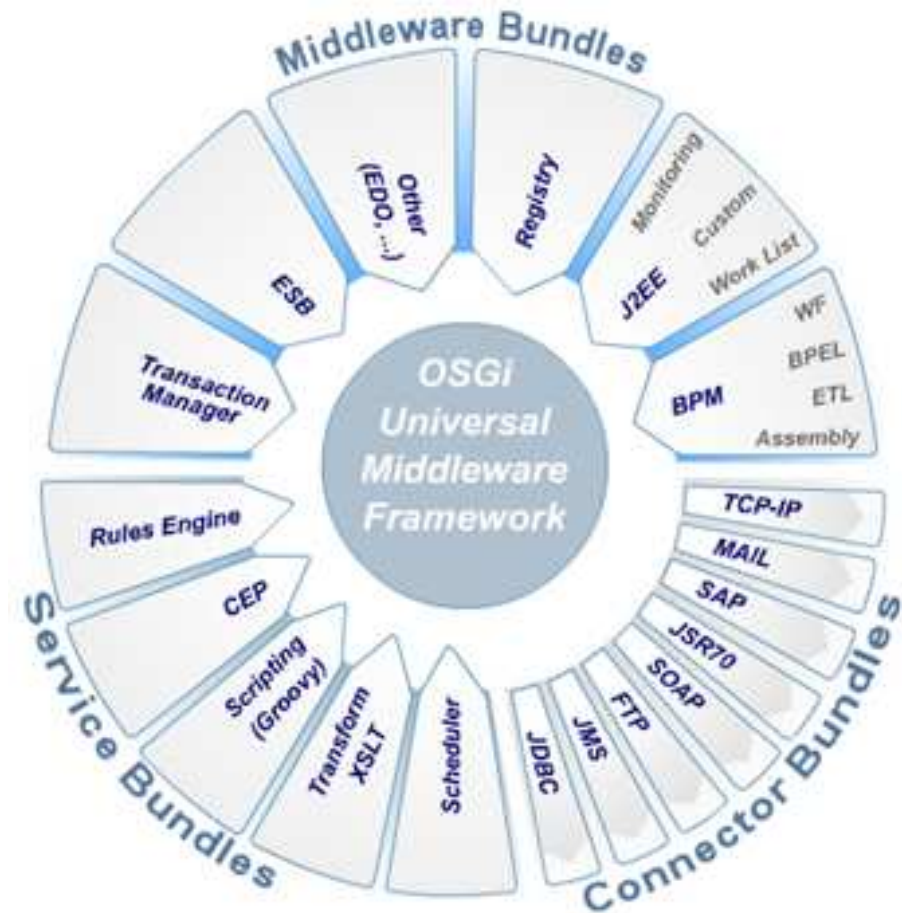
“Software that you write once and can use in binary form universally: in many different platforms, many different industries, and for many different purposes.” Peter Kriens (*OSGi evangelist*)

OSGi objectives

- Principles SOA
- Modularization
- Components lifecycle management
- Dynamic Runtime

Spagic Universal Middleware objectives

Enterprise SOA Framework of components, through which everyone can realize modular and configurable Universal Middleware components around an OSGi kernel

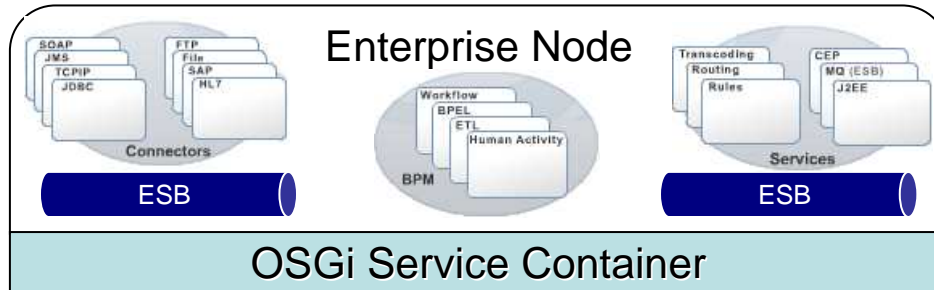


Spagic / dynamic runtime

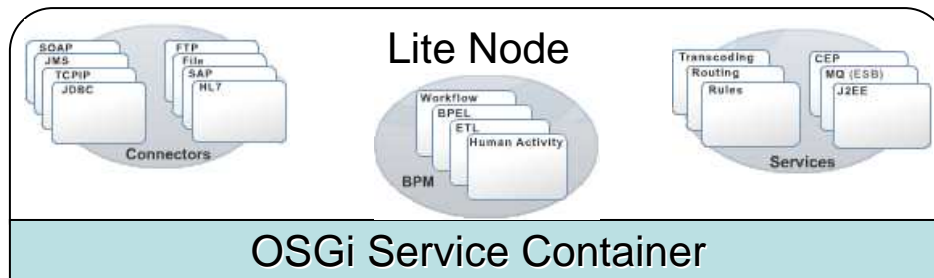


Open Source SOA Universal Middleware

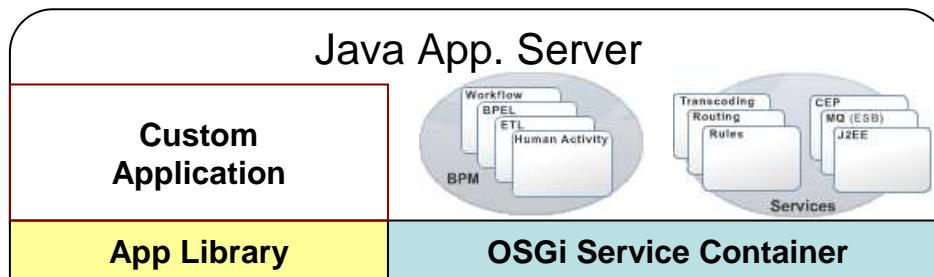
Different deploy model and dynamic change management



Node for the management of all applicative cooperation processes through BPM orchestration and message queues (ESB)



Node focused on specific applicative cooperation processes.

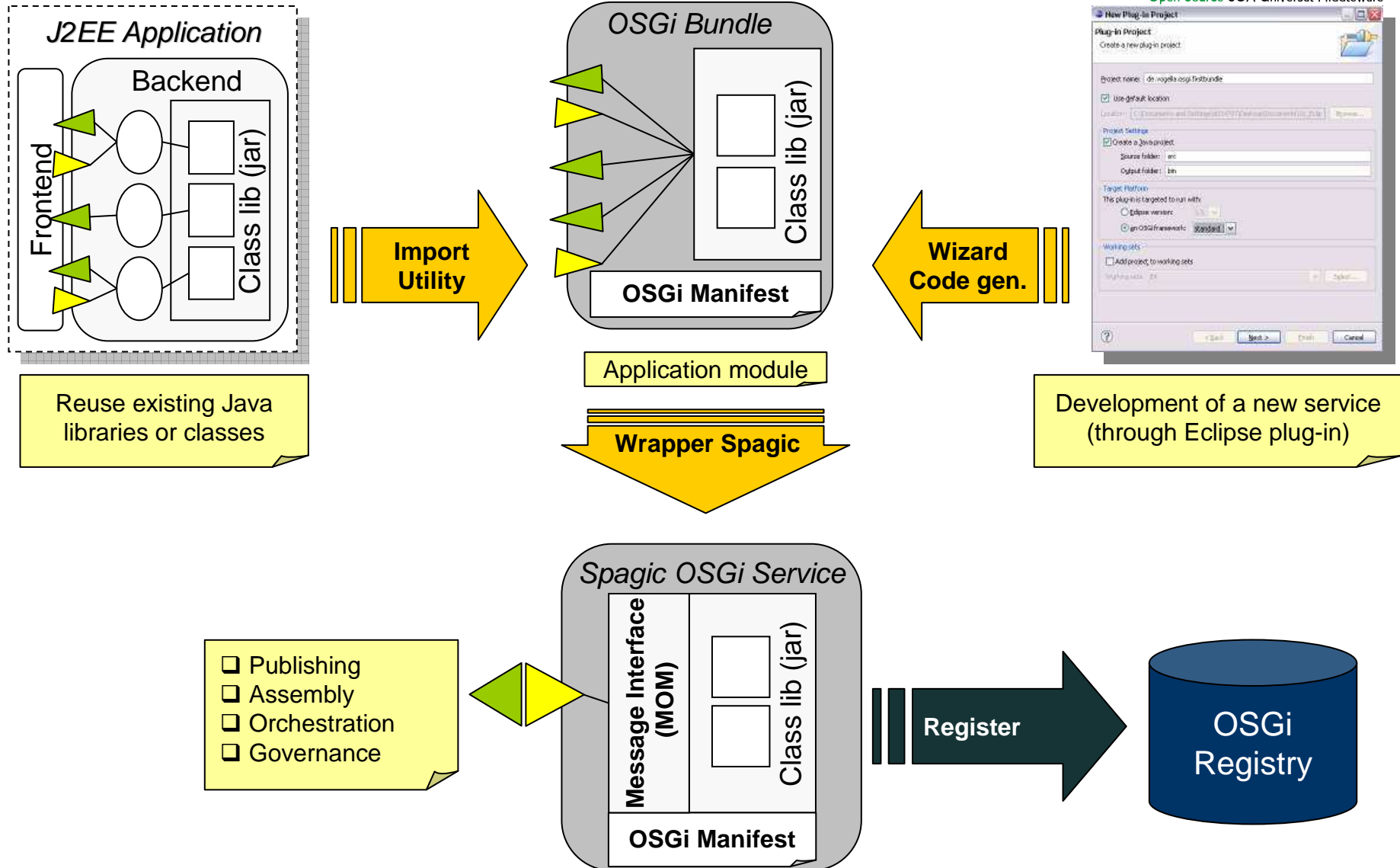


If used on an exiting application of an Application Server, it offers specific BPM cooperation features and the reuse of available services through Spagic (services and/or connectors).

Services Development / SOA Adherence

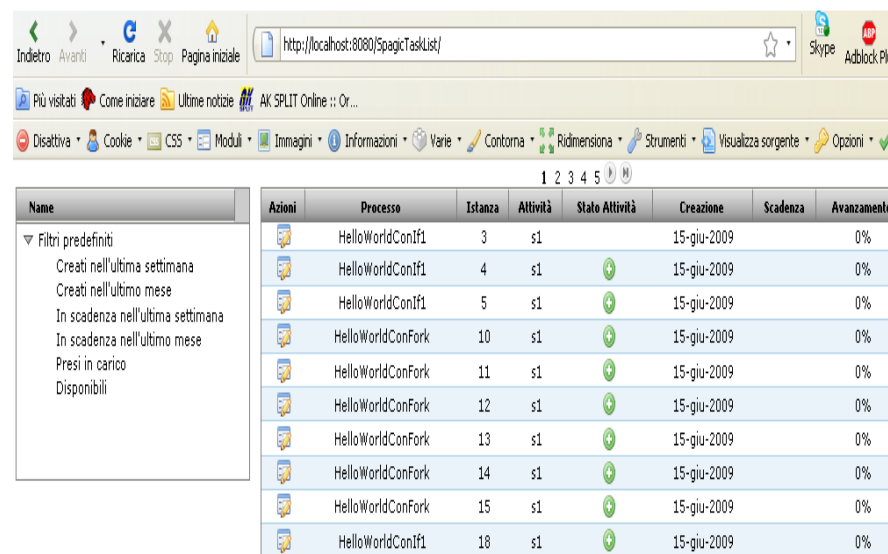


Open Source SOA Universal Middleware



TaskList

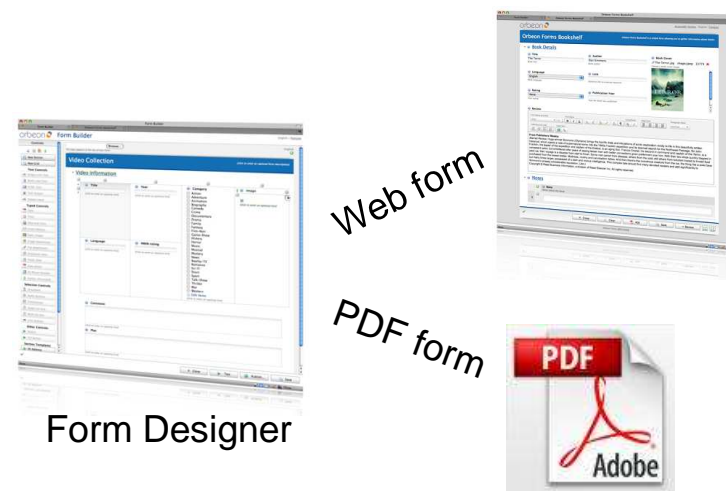
- Tasks assignment
- Integration with BPM policies rules
- API availability
- Metadata-Activities connection
- Module, which can be integrated into existing applications



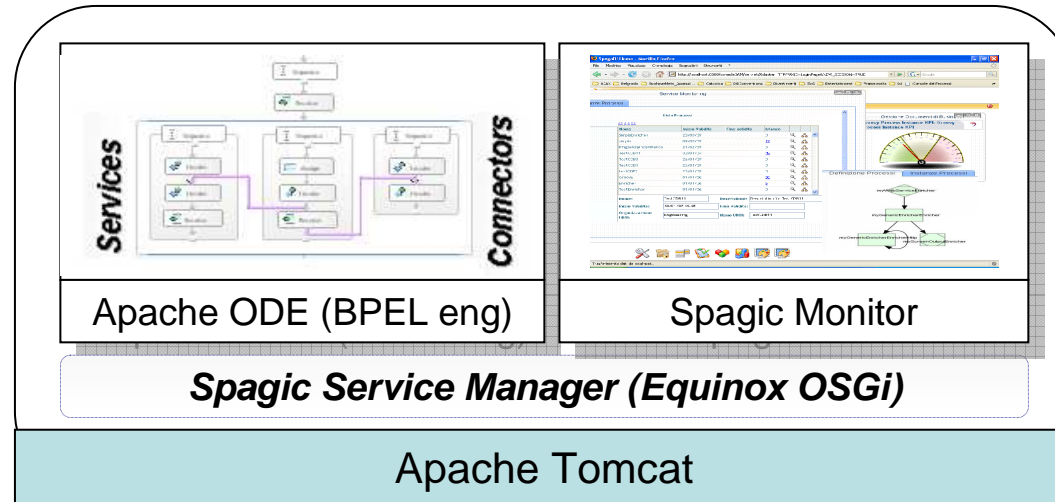
Name	Azioni	Processo	Istanza	Attività	Stato Attività	Creazione	Scadenza	Avanzamento
▼ Filtri predefiniti								
Creati nell'ultima settimana								
Creati nell'ultimo mese								
In scadenza nell'ultima settimana								
In scadenza nell'ultimo mese								
Presi in carico								
Disponibili								
		HelloWorldConf1	3	s1		15-giu-2009		0%
		HelloWorldConf1	4	s1	✓	15-giu-2009		0%
		HelloWorldConf1	5	s1	✓	15-giu-2009		0%
		HelloWorldConFork	10	s1	✓	15-giu-2009		0%
		HelloWorldConFork	11	s1	✓	15-giu-2009		0%
		HelloWorldConFork	12	s1	✓	15-giu-2009		0%
		HelloWorldConFork	13	s1	✓	15-giu-2009		0%
		HelloWorldConFork	14	s1	✓	15-giu-2009		0%
		HelloWorldConFork	15	s1	✓	15-giu-2009		0%
		HelloWorldConFork	18	s1	✓	15-giu-2009		0%

Electronic Form

- Automatic forms generation starting from the schema of the exchanged data.
- Integration with Orbeon Forms to extend Spagic to the lifecycle management of electronic modules on HTML and PDF formats.



Solution for BPEL orchestration on OSGi



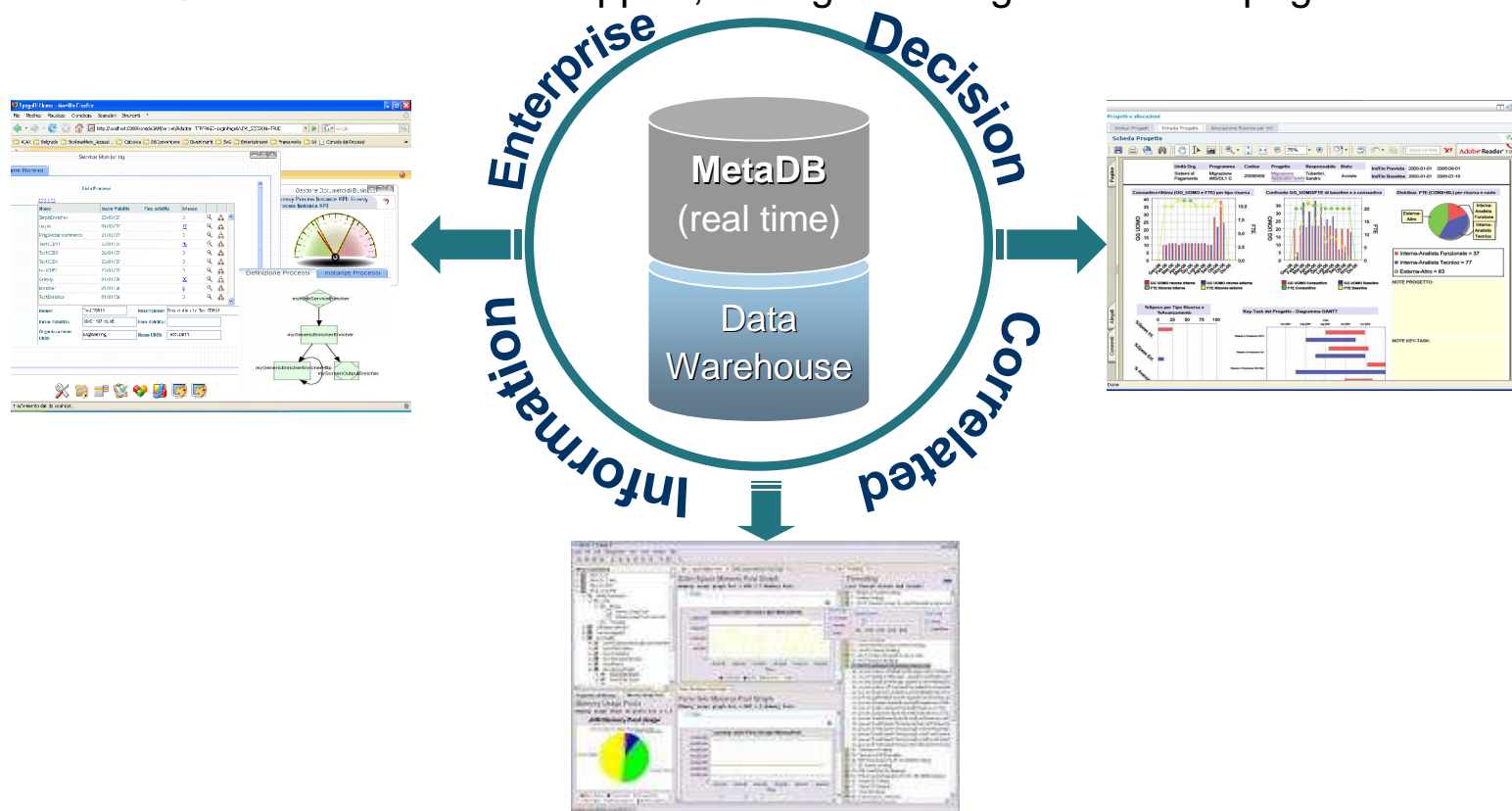
- ❑ BPEL Apache ODE engine, extended for the use of:
 - OSGi Spagic connectors
 - OSGi Bundles, as rules engine, CEP, Quartz, mail, XSLT, HL7
- ❑ Eclipse BPEL Designer, extended for the modulation of OSGi bundles
- ❑ BPMN to BPEL, export from BPMN towards half-completed BPEL processes
- ❑ Spagic Monitor for BPEL orchestration

Enterprise Monitor



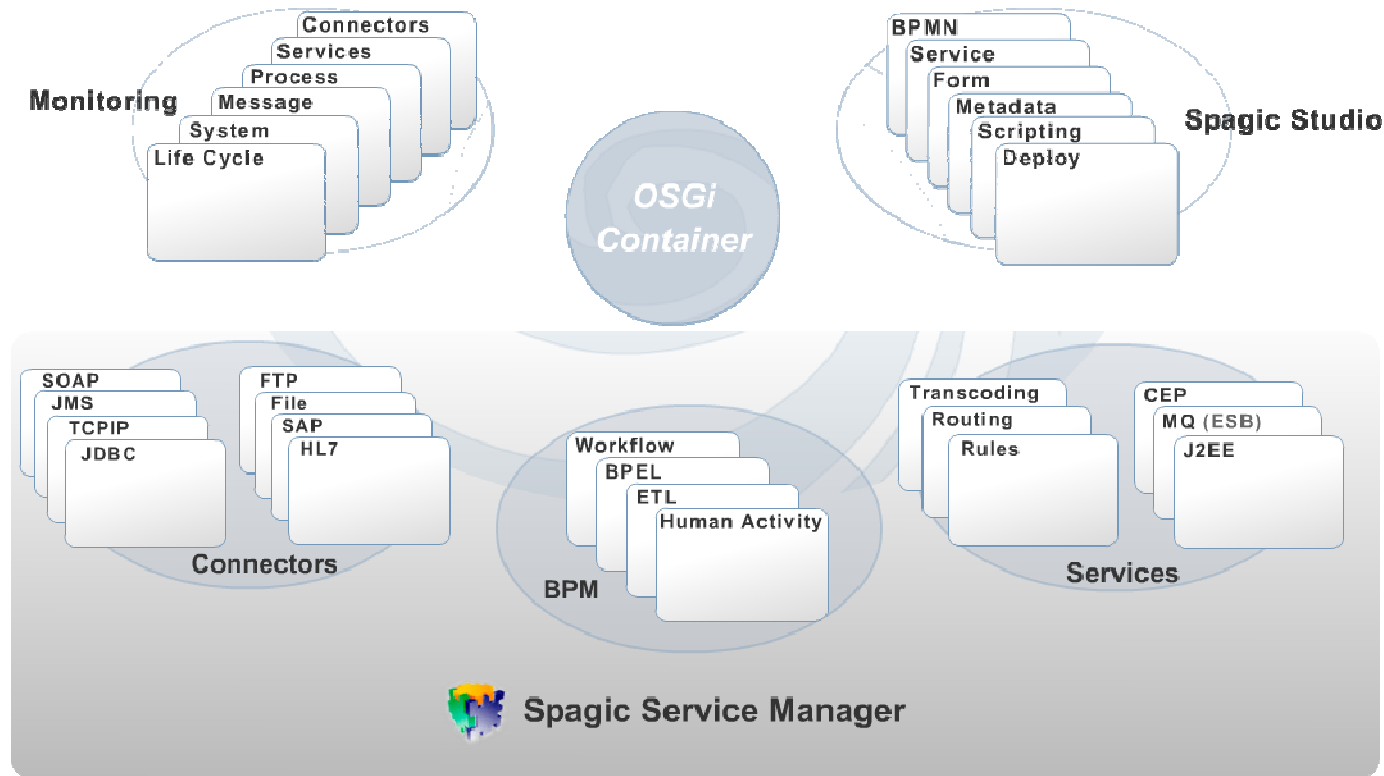
Open Source SOA Universal Middleware

- Monitoring Real time processes, services and information monitoring
- Management Error management and processes restarting option
- System Monitor Events extraction from the system monitor
- Business Intelligence Decision support, through its integration with SpagoBI





Spagic Open Source SOA Universal Middleware



spagic@eng.it