HL7 integration process with Spagic

**AUSL CESENA - PUBLIC HEALTHCARE COMPANY - DEVELOPS AND DEPLOYS ITS HL7 PROCESS WITH SPAGIC**

**Key Words**:
- HL7
- SOA
- BPM
- Monitor & Management

The Spagic SOA/BPM Enterprise Integration Platform supports the development and monitoring of an integration process based on Health Level Seven (HL7) communications messages.

**AUSL Cesena**

Public Healthcare Company - AUSL of Cesena - promotes and protects the individual and collective health of all the citizens in order to improve the quality of life, guaranteeing the essential levels of sanitary attendance as from the national and regional norms. AUSL of Cesena, operating from 1994, supports 15 municipalities with more than 190,000 citizens.

**The Need to integrate different applications with HL7**

To realize, for the VENUS project, an integration platform able to design, develop, monitor and manage the processes in order to integrate approximately 20 applications that communicate by means of HL7 v2.x messages on TCP/IP.

The system has been designed and conceived in order to cover the requirements of HL7, to improve the applications interoperability and to facilitate the management process.

The guidelines for the definition of the architecture have been: reliability, robustness, high service availability and good response times.
The Architecture

The new AUSL Cesena SOA/BPM Integration Platform is compliant with the "EDI" HL7 architecture model; its services/process can be accessed by approximately 20 Healthcare Applications. Spagic tools improve the efficiency of all the actors involved in integration processes:

- Architects
- Developers
- Managers (system and services)

Spagic components used in this project:

- Spagic Studio: to define integration processes
- Spagic Service Manager: ServiceMIX
- Binding component: HTTP/SOAP, TCP/IP, FILE/FTP, JDBC.
- Spagic Enterprise Monitor: service/process activity, to restart failed processes, Business Activity Monitor – BAM (through SpagoBI embedded)

The SOA/BPM platform for AUSL Cesena includes different key functional areas:

- Middleware SOA/BPM
- HL7 2.x
- High level tools to design processes
- Several applications cooperating by means of Spagic
- A Single monitor tool for services and process management

The Results

The use of Spagic provided the following advantages:

- Adoption of an open source solution as SOA/BPM Integration Platform
- The same component (HL7) can be exposed by different interfaces and protocols (HTTP/SOAP, TCP/IP, FILE, FTP, JDBC).
- All applications can be easily integrated by the visual tool Spagic Studio
- All information present in HL7 message can be easily find by Spagic Enterprise Monitor
- One interface managing the entire infrastructure
- Security mechanisms are available in the Spagic platform

Professional Support

- Engineering Ingegneria Informatica is the core developer of the Spagic framework and, by Engineering Sanità Enti Locali (ESEL), the system integrator of the solution for AUSL Cesena.

OW2

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