

OSMIUS Web Console Software Architecture

1 INTRODUCTION	3
1.1 ABOUT THIS MANUAL.....	3
2 SOFTWARE ARCHITECTURE.....	4
2.1 DESIGN PATTERNS.....	4
2.2 PRESENTATION LAYER.....	5
2.3 PERSISTENCE LAYER.....	5
2.4 DATABASE LAYER.....	5
2.5 OTHER FRAMEWORKS AND LIBRARIES.....	5

1 INTRODUCTION

1.1 About this manual

This is the Software Architecture Manual of the OSMIUS Web Console. It documents Web Console Version 7.09 software. It's out of the scope to discuss the benefits of this architecture or any comparison with others frameworks or architectures, but we have thought a lot about previous to the development of the Web Console.

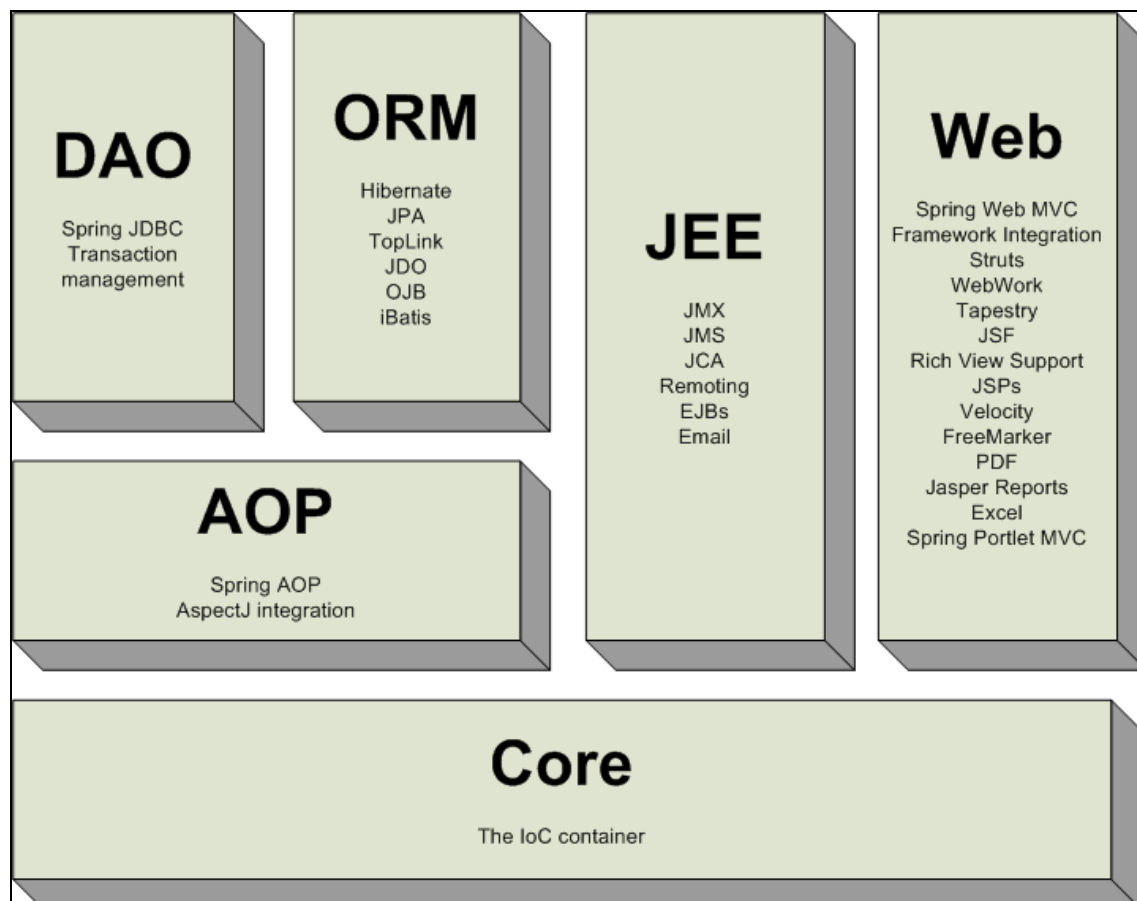
2 SOFTWARE ARCHITECTURE

2.1 Design patterns

In the Osmius Web Console we have used the following design patterns:

- Model-View-Controller (MVC)
- Data Access Object (DAO)
- Dependency Injection = Inversion of Control (IoC)

For the implementation of these patterns we have used the Spring framework. Spring framework is composed for several modules:



We are using all the modules, except JEE, in the development of the Web Console.



2.2 Presentation layer

We have used the following elements for the presentation layer.

- JSP 2.0
- Java Script
- CSS

2.3 Persistence layer

For the persistence layer we have decided to use Hibernate 3.0 because of we need an object/relational mapping tool and Spring gives hibernate support.

Why hibernate?, because of we get the following features:

- Object/Relational Mapping
- HQL
- Criteria Query
- Caching
- LazyLoading

2.4 Database layer

For the database we choose MySQL 5.5.

2.5 Other frameworks and libraries

In the development of the Web Console we use the following libraries:

- Spring 2.0
- Acegi-Security 1.x
- Hibernate 3.0
- SiteMesh 2.2.x
- JFreeChart 1.x
- AjaxTags
- Prototype/Script.aculo.us

Really we use a lot of libraries, but these are the most important ones.