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## SLA Management Installation Guide

*Activity 2: Service Construction*

*WP 2.2: Cloud QoS contracting and service configuration*

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**Dissemination Level**

<b>PU</b>	Public	<b>X</b>
<b>PP</b>	Restricted to other programme participants (including the Commission)	
<b>RE</b>	Restricted to a group specified by the consortium (including the Commission)	
<b>CO</b>	Confidential, only for members of the consortium (including the Commission)	



## Version History

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## Table of Contents

<b>1</b>	<b>INTRODUCTION .....</b>	<b>6</b>
1.1	GLOSSARY OF ACRONYMS.....	6
<b>2</b>	<b>SLAMANAGEMENT INSTALLATION GUIDE .....</b>	<b>7</b>
2.1	RELEASE INFORMATION .....	7
2.2	MINIMAL SYSTEM REQUIREMENTS .....	7
2.3	SOFTWARE PRE-REQUISITES AND DEPENDENCIES.....	7
2.4	INSTALLATION INSTRUCTIONS .....	7
2.5	GETTING STARTED.....	7
2.5.1	<i>Using the Software .....</i>	<i>7</i>
2.5.2	<i>Testing the Software.....</i>	<i>8</i>
2.5.3	<i>SLAManagement Distribution.....</i>	<i>8</i>
<b>3</b>	<b>REFERENCES .....</b>	<b>10</b>

## Index of Tables

Table 1 Software dependencies .....**Error! Bookmark not defined.**



## 1 Introduction

This document includes the installation guide for the OPTIMIS software component SLAManagement.

### 1.1 Glossary of Acronyms

Acronym	Definition
D	Deliverable
WP	Work Package
CO	Cloud Optimizer
AC	Admission Control
QoS	Quality of Service
FQDN	Fully Qualified Domain Name



## 2 SLAManagement Installation Guide

### 2.1 Release information

Table 1 - Release information

Component Name	Release Number	Release Date
SLAManagement	0.0.2-SNAPSHOT	15.03.2013

### 2.2 Minimal System Requirements

Table 2 - System Requirements

<b>JDK</b>	1.5 or above
<b>Memory</b>	No minimum requirement
<b>Disk</b>	No minimum requirement.
<b>Operating System</b>	No minimum requirement. Tested on Windows XP, Windows 7 and SuSE Linux.

### 2.3 Software Pre-requisites and Dependencies

Table 3 -Software dependencies

Product	Version	Licence
WSAG4J	1.0.2	BSD
Service Manifest API	1.0.8	Apache
Monitoring Manager	0.0.1-scai-8638	Apache

### 2.4 Installation Instructions

This section describes how to install the OPTIMIS SLAManagement web application into the Tomcat [1] servlet engine.

Download the Apache Tomcat [1] and extract it into your home directory.

Download the OPTIMIS SLAManagement web application [2] into your home directory and rename it to optimis-sla.war. Copy this war file to the webapps folder of your Tomcat installation.

Start Tomcat by calling the start script from the subfolder named bin of your Tomcat installation.

Opening the URL <http://127.0.0.1:8080/optimis-sla> in a Web-Browser should display the Welcome Page of the WSAG4J server application.

### 2.5 Getting started

#### 2.5.1 Using the Software

The usage of the module is thoroughly described in the SLAManagement User Guide.



### 2.5.2 Testing the Software

To test that the service was installed properly you can run an integration test provided in the OPTIMIS subversion repository.

Checkout the project from subversion:

```
svn co
http://pandora.atosorigin.es/svn/optimis/branches/OptimisY3/SLAManagement/trunk sla-
management-0.0.2-SNAPSHOT
```

1. Change to the checked out directory  
`cd sla-management-0.0.2-SNAPSHOT`
2. Set the SLAManagement URL, there are two ways of doing that:
  - Sets this URL by “wsag4j.gateway.address” system property
  - Open the file `AbstractSLAIT.java` in `sla-management-service/src/test/java/` and configure the private property `URL_PART` to match the location (IP-Address or FQDN) of your installed SLAManagement component.  
`vi sla-management-service/src/test/java/AbstractSLAIT.java`
3. `mvn -Dit.test=VMProvisioningIT verify` to run the tests

### 2.5.3 SLAManagement Distribution

SLAManagement contains a maven module for distribution and packaging that automates the configuration and deployment of the SLAManagement component in any environment. It packages the SLAManagement web archive (war) together with apache tomcat. It includes python based configuration scripts to automate the configuration of the SLAManagement for a given environment. Moreover, scripts for life cycle management (start/stop/clean) are also provided. One needs to review and edit the main `configuration.properties` file for set of given parameters (see manual configuration section). A ‘README’ file can be reviewed for more detailed explanation on setting up the SLAManagement server instance. The distribution can be downloaded from OPTIMIS artifactory [3].

#### Manual Configuration

In order to setup and configure SLAManagement server instance manually, a few common service parameters must be configured. These service parameters are configured in the `optimis.config` file. The `optimis.config` file is located in the `/WEB-INF/classes/` folder of the SLAManagement web application downloaded from the svn before. The parameters that are configured here are e.g. the gateway address, the key store and the trust store.

#### Gateway Address

The gateway address is the external address of the SLAManagement service. Usually it is the address of the deployed web-application. However, there might be cases where the service should be integrated with a web server (e.g. Apache HTTP server). In this case, the gateway address is the address that clients use to access the server.

#### Keystore and Truststore

SLAManagement uses WS-Security by default, in order to identify clients via digital signatures and to assure that messages are delivered in time (e.g. within 5 minutes) by using time stamps. Therefore, SLAManagement requires a server key store, which contains the server certificate and private key, and a trust store, which holds the certificates of the trusted CA's.



### **OPTIMIS Component Endpoints**

In order to configure the SLAMangement component to interact properly with the OPTIMIS components, the `component-connection.properties` file has to be configured properly. The file is also located in the `/WEB-INF/classes/` folder of the SLAMangement web application.

To configure the URL to the admission control component, set `VMServiceInstantiation.url.ac` property.

To configure the URL to the cloud optimizer component, set `VMServiceInstantiation.url.co` property.

To configure the URL to the monitoring manager component, set `monitoring.manager.host` and `monitoring.manager.port` properties.

### 3 References

- [1] Apache Tomcat, <http://tomcat.apache.org/>
- [2] SLAManagement Web Application download, <http://95.211.106.248/artifactory/libs-snapshot-local/eu/optimis/sla-management/sla-management-service/0.0.2-SNAPSHOT/sla-management-service-0.0.2-SNAPSHOT.war>
- [3] SLAManagement distribution download, <http://95.211.106.248/artifactory/libs-snapshot-local/eu/optimis/sla-management/sla-management-distribution/0.0.2-SNAPSHOT/sla-management-distribution-0.0.2-SNAPSHOT-server-bin.zip>