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| Advanced IMS Inc. |
| OAMP Manual |
| Deployment/Installation & Setup guide |

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Brief Introduction to OAMP modules

OAMP system consists of four core modules.

1. WebManager
2. TrapServer
3. SNMPManager
4. OAMPServiceClient
5. Network Analyzer

## WebManager

This is major module responsible for running core SNMP and trap services along with web based OAMP client application. It also contains the OAMP web service which is accessed by desktop application client i.e. Network Analyzer. WebManager also publishes a JMS queue for the clients e.g. Network Analyzer to get instant notifications for received traps etc.

## Trap Server

Trap Server is a J2se based server module capable of receiving all sorts of traps, notifications and inform messages from registered SNMP agents. WebManager contains a web service built on top of this server module, which make it possible to open its north bound interface for clients e.g. Network Analyzer.

## SNMP Manager

SNMP Manager is a J2SE based SNMP server module responsible for interfacing with agents to perform low level SNMP operations, that include agent registration to SNMP server, performing get/set requests on agents etc. SNMP manager is also deployed with WebManager and its northbound is open for clients via OAMP web service.

## OAMPServiceClient

TrapServiceClient is the JAX-RPC client written for OAMP JAX-WS web service. This client module is used by Network Analyzer to communicate with Trap Server, registered SNMP agents and to perform SNMP get/set operations.

## Network Analyzer

Network Analyzer is a J2SE based desktop application client. It provides features of a standard NMS e.g. SNMP GET/SET requests, Trap Viewer, remote management of trap & SNMP server etc.

Build and Deployment Setup

## WebManager

Check out the latest ManagerApp NetBeans project from SVN.

To build the application, simply use NetBeans Build operation.

WebManager is dependent on various third party libraries and following NetBeans Project modules which should be in class path of the current project. In case “Resolve Reference Problem” error is popped up from NetBeans then adjust the libraries path in the project properties which should be [Project Folder]/lib/[Library Name] and checkout following projects from SVN. Also adjust the project properties to add these projects in classpath if not so already.

1. SNMPManager
2. TrapServer

By default building WebManager project module will build SNMPManager and TrapServer projects. However if any source code changes are performed on other projects, those project should be built using NetBeans standard build operation and then WebManager project should be rebuild to reflect the latest changes.

Before deployment following actions should be considered as pre-requisite:

#### MySQL Database Setup

* Install latest MySQL distribution from [MySQL](http://www.mysql.com) along with latest distribution of MySQL GUI Tools.
* Get the latest OAMP MySQL dump from SVN.
* Use MySQL Administrator application to create the schema named OAMP and then restore the downloaded dump file.

#### Apache Tomcat Setup

* Usually NetBeans ships with built-in apache tomcat distribution, however if it isn’t available you’ll have to download ([Apache Tomcat](http://www.tomcat.apache.org/)) and register the server in NetBeans. Please refer to NetBeans.org for more details on registering external Tomcat server with the IDE. Server registration is not only used to deploy the application but also to build the application without errors.
* After installing tomcat following action must be performed to enable application security:
* Open [CATALINA\_HOME]/conf/Server.xml and add comment out current realm. Then copy and paste the following realm in the server.xml.

<Realm className="org.apache.catalina.realm.JDBCRealm"

debug="99"

driverName="com.mysql.jdbc.Driver" connectionURL="jdbc:mysql://localhost:3306/oamp?

user=root&amp;password=rootroot"

userTable="tbl\_users"

userNameCol="username"

userCredCol="password"

userRoleTable="tbl\_user\_roles" roleNameCol="role\_name"

/>

*Note: Change the database connection settings according to your own MySQL installation.*

#### OpenJMS Setup

Download and install OpenJMS and add a topic named TrapsTopic using OpenJMS admin application client. This topic is published from OAMP web service and Network Analyzer listens to this topic to get Trap notifications and details instantly. For more information on this visit [OpenJMS](http://openjms.sourceforge.net/downloads.html) Official Web Site.

#### WebManager Configurations Settings

* Modify the file in sources:

[Project Folder]\src\java\org\ict\oamp\config\appconfig.xml and change the settings to your own MySQL installation settings.

After performing all above tasks, rebuild the project once again. If you want to deploy the application using NetBeans then just simply right click on the project node and click deploy. If all goes well then application will be available on [tomcat host URL:port /webmanager]. In case some errors were encountered then check Tomcat logs for details.

## TRAP Server

Trap server project deploys as part of the WebManager (ManagerApp project).

To build the application though please reset the libraries path from the project properties.

## SNMP Manager

Like Trap Server project SNMP Manager project also deploys with WebManager and to build the project from NetBeans reset the libraries path from Project Properties menu option.

*Note: for both projects lib directory in project folders contain all the required third party library jars.*

## Network Analyzer

To build the project, checkout the latest AdvoSSNetworkAnalyzer NetBeans project from SVN.

This project depends on various third party library jars contained in lib folder of the project home directory. Also this project is dependent on OAMPServiceClient project. It is advisable to checkout OAMPServiceClient NetBeans project when working for Network Analyzer application.

Network Analyzer is a desktop application so no deployment is required. Just click the NetBeans standard Run command to run the project.

When client is running, click Tools>Settings from menu bar. A dialog box will appear in which provide the WebManager HTTP URL according to your own installation. Leave the service name unchanged.