

AlloraDBConnector for Sync4j Technical Overview

The AlloraDBConnector for Sync4j enables you to synchronize PIM (personal information management) data on desktop, handheld or wireless devices with standard relational databases. Sync4j includes a simple module for performing this PIM data synchronization with a single database table. However, in situations where you need to integrate and synchronize PIM data with a relational database having a complex schema with multiple tables, AlloraDBConnector provides the power and flexibility you need. It is particularly useful in the following situations:

- You are mapping device data to existing relational tables that include additional columns used by other applications.
- You are mapping device data to more than one table.

For example, assume that your IT department keeps a database of sales contacts in Oracle and each member of the sales force needs to update the corporate database with latest sales contact information, you can use AlloraDBConnector to set up an environment where salespeople synchronize their cellphone data with the existing Oracle tables.

The basic steps involved in setting up this type of synchronization are:

1. As for any Sync4j application, install an application server (JBoss or tomcat), the Sync4j server and the appropriate Sync4j Client for your device.
2. Install Allora.
3. Configure Allora to use your chosen JDBC driver and database by creating an Allora data source.
4. Run the Allora Mapper.
5. Create an Allora project with mappings between the database and the XML schema that represents your device data.

All Allora mapping projects developed for use with the AlloraDBConnector for Sync4j should use the SIF format XML schema. The SIF format is the "Sync4j Interchange Format" and it is an XML format. The details for this format are available in the Sync4j documentation.

6. Launch the Sync4j SyncAdmin tool.
7. Create a new SyncSource with your Allora project information.
8. Configure your Sync4j/SyncML client to use this syncsource.
9. Start synchronization from your device.

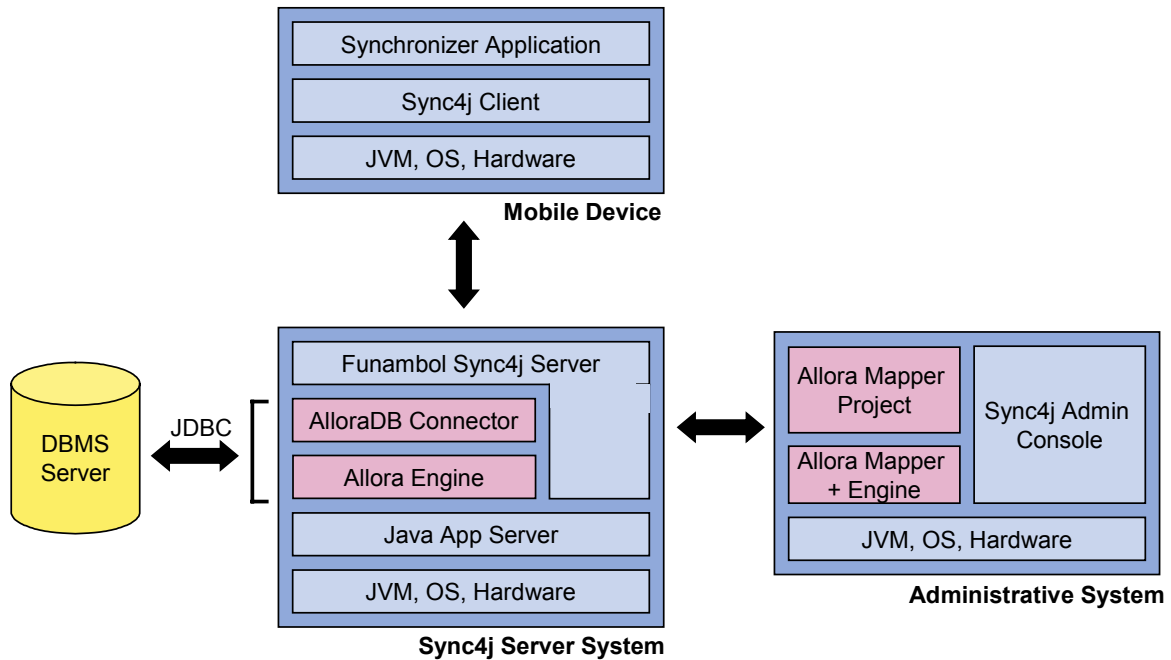


Figure 1: AlloraDBConnector for Sync4j Architecture

Here is what happens during the synchronization process:

- The Sync4j server retrieves the date and time when a synchronization was last done with this Sync4j client and the AlloraDBConnector syncsource.
- The Sync4j server invokes Allora, through the AlloraDBConnector, to get the list of records that have been updated or inserted in the database tables associated with the AlloraDBConnector syncsource.
- The Sync4j server retrieves the records in your device that were inserted/deleted/updated after the last synchronization time using the Sync4j client. The Sync4j client sends these records to the Sync4j server in SIF format (XML).
- The Sync4j server compares the 2 sets of records, one from the database and the other from the mobile device.
- If there are any records that were updated or created in the device, they are updated in the database using Allora (through the AlloraDBConnector).
- Similarly if there are any records that were updated or created in the database, they are updated in the device using the Sync4j client.