

JDBC Driver

Kognitio provides a JDBC driver to allow Java applications to access the Kognitio database. It connects to the server directly, without the need for a JDBC-ODBC bridge or any ODBC setup. It implements version 4.1 of the JDBC API.

Prerequisites

- Your Kognitio server must be **version 8.1 or later**. If the JDBC driver connects to an older server, the driver will detect this and throw an exception.
- Your Java Runtime Environment (JRE) must be version 1.7 or later.
- The JDBC driver connects directly to the server on (by default) port 6550. You don't need any special firewall rules or network permissions that you don't already need for an ODBC connection.

Installation and connection

- Add the Kognitio driver, `KognitioJDBC.jar`, to your JDBC application. How you do this is specific to your application - consult your application's documentation.
- If your JDBC application needs the name of the driver class, it is `com.kognitio.jdbc.Driver`.
- The format of the connection URL is:
`jdbc:kognitio://serveraddress[:port][;option1=value1;option2=value2;...]`
- If the port number is omitted, the default port 6550 is used.
- (from 8.2.1) Alternatively, multiple addresses may be specified separated by commas or as ranges of addresses in square brackets. As with an ODBC DSN, the driver will start with a random address from the list and iterate through the list until it successfully connects or until it has tried every address. See the examples below.

Example connection URLs

To connect to 172.30.11.10:

```
jdbc:kognitio://172.30.11.10
```

To connect to 172.30.11.10, timing out if we can't make a connection in 10 seconds:

```
jdbc:kognitio://172.30.11.10;timeout=10
```

Three ways to connect to a server which has four adjacent IP addresses, trying each one in turn:

```
jdbc:kognitio://172.30.21.1,172.30.21.2,
172.30.21.3,172.30.21.4
jdbk:kognitio://172.30.21.[1,2,3,4]
jdbk:kognitio://172.30.21.[1-4]
```

To connect to 172.30.11.10 on port 6551:

```
jdbk:kognitio://172.30.11.10:6551
```

To connect to 172.30.11.10, but cause the connection to fail if SSL encryption cannot be set up:

```
jdbk:kognitio://172.30.11.10;requireencryption=true
```

Shorthand notation to connect to a server with addresses 10.0.0.1, 10.0.0.3, 10.0.0.6, 10.0.0.7, 10.0.0.8 and 10.0.0.11:

```
jdbk:kognitio://10.0.0.[1,3,6-8,11]
```

Connect to server listening on a range of ports

```
jdbk:kognitio://10.0.0.1:[6550-6553]
```

Connection URL options

Option	Type	Default	Description
loglevel	Java logging level	INFO	Specify log detail level, if <code>logpath</code> is set. The valid values, in ascending order of verbosity, are OFF, SEVERE, WARNING, INFO, CONFIG, FINE, FINER, FINEST, and ALL.
logpath	string	(not set)	If set, write debug information for this connection to the specified log file.
randomserveraddress	true/false	true	(from 8.2.1) If a list of addresses is given, then if set to true, start from a random address in the list. If set to false, start from the first address in the list.
requestencryption	true/false	true	Attempt to set up an SSL session to encrypt client-server traffic. N.B. With Java 1.8 onwards, the JDBC driver cannot make SSL sessions with servers older than version 8.2.
requireencryption	true/false	false	If SSL cannot be set up, fail to connect rather than fall back to an unencrypted connection.
timeout	integer	0	Time out if it takes longer than this many seconds to establish a TCP connection to the server. If the value is 0, or anything other than a positive integer, no timeout is enforced.