

HIVE ODCI, Users Guide

Version 1.x

Table of Contents

License.....	3
Overview.....	4

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Overview

HIVE-ODCI is an Oracle Database Data Cartridge Interface plug-in for making Apache Hive Database SQL functionality natively available from within an Oracle 11g or higher RDBMS, making use of the Oracle Extensibility Architecture framework as documented at: <https://docs.oracle.com/database/121/ADDCI/toc.htm>.

The HIVE-ODCI functionality is built upon the idea of using a JDBC pass-through of SQL to a remote database, to retrieve and execute both DML and DDL statements. While Apache Hive is the target database, and the reason for creating, any Type 4 JDBC Driver can be swapped out and used, for example MySQL, PostgreSQL or any other complaint driver.

The initial release used the Data Direct HIVE JDBC Driver, from Progress Software. More information, including licensing and pricing can be found at: <https://www.progress.com/jdbc/apache-hadoop-hive>

Finally, the initial release was created as a proof-of-concept (POC) for the United States Government, Department of Homeland Security, US Customs and Border Protection, Targeting and Analysis Systems Program Directorate (TASPD) by Metasystems Technologies Inc. (MTI).

This POC was created as a way to allow large datasets in an Oracle RDMS to be loaded into Hadoop, accessible through Hive while keeping applications and PL/SQL unchanged. Using HIVE-ODCI, VIEW objects can be created of the same name as the original tables. SQL can be passed through via INSTEAD OF triggers for DML operations and data accessibility from standard SELECT. Once moved to Hadoop Hive, TASPD was able to achieve virtually 100% compatibility with their existing code base, their applications and PL/SQL, implementing HIVE-ODCI.

HIVE-ODCI is released under the permissive BSD Licensing and available freely for download and usage. This does **not** include a Hive JDBC Type 4 driver as part of the release, only the Java and PL/SQL Code needed to achieve the functionality. A JDBC driver will need to be obtained either through OpenSource or through a proprietary licensing agreement with a vendor.

Github Access

Source: <https://github.com/nvanwyen/hive-odci>

Latest Release: <https://github.com/nvanwyen/hive-odci/releases/latest>

