

Informatica® B2B Data Exchange 10.2.2

# Operational Data Store Schema Reference

Informatica B2B Data Exchange Operational Data Store Schema Reference 10.2.2 June 2018

© Copyright Informatica LLC 2001, 2018

This software and documentation are provided only under a separate license agreement containing restrictions on use and disclosure. No part of this document may be reproduced or transmitted in any form, by any means (electronic, photocopying, recording or otherwise) without prior consent of Informatica LLC.

U.S. GOVERNMENT RIGHTS Programs, software, databases, and related documentation and technical data delivered to U.S. Government customers are "commercial computer software" or "commercial technical data" pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, the use, duplication, disclosure, modification, and adaptation is subject to the restrictions and license terms set forth in the applicable Government contract, and, to the extent applicable by the terms of the Government contract, the additional rights set forth in FAR 52.227-19, Commercial Computer Software License.

Informatica, the Informatica logo, Informatica Cloud, PowerCenter, PowerExchange, and Big Data Management are trademarks or registered trademarks of Informatica LLC in the United States and many jurisdictions throughout the world. A current list of Informatica trademarks is available on the web at https://www.informatica.com/trademarks.html. Other company and product names may be trade names or trademarks of their respective owners.

Portions of this software and/or documentation are subject to copyright held by third parties. Required third party notices are included with the product.

See patents at https://www.informatica.com/legal/patents.html.

DISCLAIMER: Informatica LLC provides this documentation "as is" without warranty of any kind, either express or implied, including, but not limited to, the implied warranties of noninfringement, merchantability, or use for a particular purpose. Informatica LLC does not warrant that this software or documentation is error free. The information provided in this software or documentation may include technical inaccuracies or typographical errors. The information in this software and documentation is subject to change at any time without notice.

#### **NOTICES**

This Informatica product (the "Software") includes certain drivers (the "DataDirect Drivers") from DataDirect Technologies, an operating company of Progress Software Corporation ("DataDirect") which are subject to the following terms and conditions:

- 1. THE DATADIRECT DRIVERS ARE PROVIDED "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NON-INFRINGEMENT.
- 2. IN NO EVENT WILL DATADIRECT OR ITS THIRD PARTY SUPPLIERS BE LIABLE TO THE END-USER CUSTOMER FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, CONSEQUENTIAL OR OTHER DAMAGES ARISING OUT OF THE USE OF THE ODBC DRIVERS, WHETHER OR NOT INFORMED OF THE POSSIBILITIES OF DAMAGES IN ADVANCE. THESE LIMITATIONS APPLY TO ALL CAUSES OF ACTION, INCLUDING, WITHOUT LIMITATION, BREACH OF CONTRACT, BREACH OF WARRANTY, NEGLIGENCE, STRICT LIABILITY, MISREPRESENTATION AND OTHER TORTS.

The information in this documentation is subject to change without notice. If you find any problems in this documentation, report them to us at infa\_documentation@informatica.com.

Informatica products are warranted according to the terms and conditions of the agreements under which they are provided. INFORMATICA PROVIDES THE INFORMATION IN THIS DOCUMENT "AS IS" WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING WITHOUT ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND ANY WARRANTY OR CONDITION OF NON-INFRINGEMENT.

Publication Date: 2018-09-26

## **Table of Contents**

Preface
Informatica Resources
Informatica Network
Informatica Knowledge Base
Informatica Documentation
Informatica Product Availability Matrixes
Informatica Velocity
Informatica Marketplace
Informatica Global Customer Support
Chapter 1: Operational Data Store Schema Overview
Operational Data Store Schema Overview
Operational Data Store Tables
Operational Data Store Structure and Relationships
Chapter 2: Fact Tables 10
Fact Tables Overview
DX_ODS_EVENT_FACTS Table
DX_ODS_CUSTOM_FACTS Table
Chapter 3: Dimension Tables 14
Dimension Tables Overview
DX_ODS_ACCOUNT Table
DX_ODS_CUSTOM_FACTS_EAV Table
DX_ODS_EVENT_STATUS Table
DX_ODS_EVENT_TYPE Table
DX_ODS_PARTNER Table
DX_ODS_TIME_BREAKDOWN Table
Chapter 4: User Access Tables
User Access Tables Overview
DX_ODS_USER_ACCESS Table
DX_ODS_USER_EVENT_TYPE Table
DX_ODS_USER_SUPER Table
Appendix A: Examples
SQL Query Examples
Index 21

## Preface

The Operational Data Store Schema Reference provides information about the structure and content of the tables in the operational data store. This reference is written for B2B Data Exchange developers who need to access the information in the database for creating custom reports in B2B Data Exchange or external reporting tools. It assumes that you have working knowledge of database management experience creating and maintaining reports for Dashboard applications.

### Informatica Resources

### Informatica Network

Informatica Network hosts Informatica Global Customer Support, the Informatica Knowledge Base, and other product resources. To access Informatica Network, visit https://network.informatica.com.

As a member, you can:

- · Access all of your Informatica resources in one place.
- · Search the Knowledge Base for product resources, including documentation, FAQs, and best practices.
- · View product availability information.
- Review your support cases.
- Find your local Informatica User Group Network and collaborate with your peers.

### Informatica Knowledge Base

Use the Informatica Knowledge Base to search Informatica Network for product resources such as documentation, how-to articles, best practices, and PAMs.

To access the Knowledge Base, visit <a href="https://kb.informatica.com">https://kb.informatica.com</a>. If you have questions, comments, or ideas about the Knowledge Base, contact the Informatica Knowledge Base team at KB\_Feedback@informatica.com.

### Informatica Documentation

To get the latest documentation for your product, browse the Informatica Knowledge Base at https://kb.informatica.com/\_layouts/ProductDocumentation/Page/ProductDocumentSearch.aspx.

If you have questions, comments, or ideas about this documentation, contact the Informatica Documentation team through email at infa\_documentation@informatica.com.

### Informatica Product Availability Matrixes

Product Availability Matrixes (PAMs) indicate the versions of operating systems, databases, and other types of data sources and targets that a product release supports. If you are an Informatica Network member, you can access PAMs at

https://network.informatica.com/community/informatica-network/product-availability-matrices.

### Informatica Velocity

Informatica Velocity is a collection of tips and best practices developed by Informatica Professional Services. Developed from the real-world experience of hundreds of data management projects, Informatica Velocity represents the collective knowledge of our consultants who have worked with organizations from around the world to plan, develop, deploy, and maintain successful data management solutions.

If you are an Informatica Network member, you can access Informatica Velocity resources at http://velocity.informatica.com.

If you have questions, comments, or ideas about Informatica Velocity, contact Informatica Professional Services at ips@informatica.com.

### Informatica Marketplace

The Informatica Marketplace is a forum where you can find solutions that augment, extend, or enhance your Informatica implementations. By leveraging any of the hundreds of solutions from Informatica developers and partners, you can improve your productivity and speed up time to implementation on your projects. You can access Informatica Marketplace at https://marketplace.informatica.com.

### Informatica Global Customer Support

You can contact a Global Support Center by telephone or through Online Support on Informatica Network.

To find your local Informatica Global Customer Support telephone number, visit the Informatica website at the following link:

http://www.informatica.com/us/services-and-training/support-services/global-support-centers.

If you are an Informatica Network member, you can use Online Support at http://network.informatica.com.

### CHAPTER 1

# Operational Data Store Schema Overview

This chapter includes the following topics:

- · Operational Data Store Schema Overview, 6
- Operational Data Store Tables, 7
- · Operational Data Store Structure and Relationships, 8

## Operational Data Store Schema Overview

The operational data store is a repository that contains aggregated information about events that B2B Data Exchange processes. B2B Data Exchange uses the information for business activity monitoring and Dashboard reports.

The operational data store schema is based on a star schema. The operational data store includes the following table types:

- Fact tables. Contain aggregated information thatB2B Data Exchange collects about events. Fact tables
  store event information based on key performance indicators (KPIs). Default KPIs in B2B Data Exchange
  provide event processing information, such as number of events or processing time. Custom KPIs provide
  values for event attributes that you select to use in reports, such as sales figures or customer claim
  values.
- Dimension tables. Contain additional metadata that you can use to filter the information from the fact tables. Dimension tables store descriptive information about event properties, such as the related partner, account, or event type.
- User access tables. Contain information aboutB2B Data Exchange security restrictions for specific event dimensions. User access tables store user information according to the access role and the type of information that the users view.

B2B Data Exchange collects events from the run-time repository with the operational data store event loader. The operational data store event loader is a PowerCenter workflow that runs at predefined intervals and loads KPIs to the relevant tables.

Use the Operation Console to view the reports in the Dashboard. Use Logi Info Studio to enhance the default Dashboard panels or to create custom Dashboard panels with information from the operational data store. You can also create custom reports with an external tool directly from the operational data store according to the organization requirements.

For information about viewing reports in the Dashboard from the Operation Console, see the *B2B Data Exchange Operator Guide*. For information about enhancing and customizing the Dashboard with Logi Info Studio, see the *B2B Data Exchange Developer Guide*.

## **Operational Data Store Tables**

The operational data store contains fact tables, dimension tables, and user access tables.

The following table describes the fact tables:

Table Name	Description
DX_ODS_EVENT_FACTS	Aggregated event information based on default KPIs. Default KPIs provide information about events according to the basic event properties, such as processing time or number of events.
DX_ODS_CUSTOM_FACTS	Aggregated event information based on custom KPIs. You create custom KPIs from event attributes that you define in the Operation Console. The attribute value may represent any numeric data that you want to aggregate, such as sales figures or the amount of insurance claims.

The following table describes the dimension tables:

Table Name	Description	
DX_ODS_ACCOUNT	Names and identifiers of related accounts. This table also contains the parent partners for the accounts.	
DX_ODS_CUSTOM_FACTS_EAV	Names and identifiers of event attributes that you select to use in reports.	
DX_ODS_EVENT_STATUS	Names and identifiers of event statuses. This table also contains error and final status information.	
DX_ODS_EVENT_TYPE	Names and identifiers of event types.	
DX_ODS_PARTNER	Names and identifiers of related partners. This table does not contain account information.	
DX_ODS_TIME_BREAKDOWN	Time frames and units for the event aggregation, such as the time and date on which event processing began.	

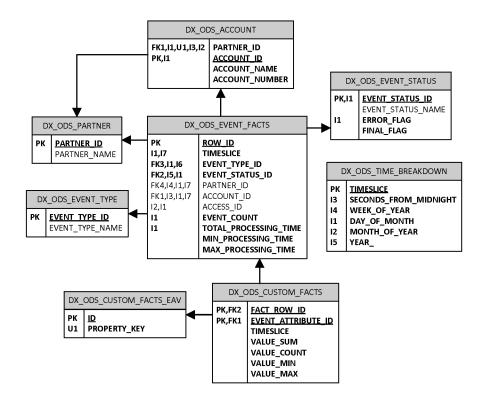
The following table describes the user access tables:

Table Name	Description	
DX_ODS_USER_ACCESS	Identifiers for B2B Data Exchange users and access roles.	
DX_ODS_USER_EVENT_TYPE	Identifiers for B2B Data Exchange users and the event types that the users can access.	
DX_ODS_USER_SUPER	Identifiers for B2B Data Exchange users with no access restrictions.	

## Operational Data Store Structure and Relationships

The operational data store contains fact tables, dimension tables, and user access tables. The fact tables typically have primary-foreign key relationships with the dimension tables. The user access tables contain security restriction information according to the B2B Data Exchange user permissions.

The following figure shows the relationships between the fact tables and the dimension tables:



In the figure, each table displays the column names and key types. Columns that function as primary keys are underlined. The connectors indicate the primary-foreign key relationship between the tables.

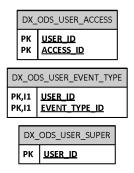
The following table describes the tables and relationships:

Table Name	Primary Key Name	Foreign Key Usage
DX_ODS_CUSTOM_FACTS	- FACT_ROW_ID - EVENT_ATTRIBUTE_ID	Not used.
DX_ODS_EVENT_FACTS	ROW_ID	Used as a foreign key in the following tables: - DX_ODS_EVENT_FACTS
DX_ODS_ACCOUNT	ACCOUNT_ID	Used as a foreign key in the following tables: - DX_ODS_EVENT_FACTS
DX_ODS_CUSTOM_FACTS_EAV	ID	Used as a foreign key in the following tables: - DX_ODS_CUSTOM_FACTS. The foreign key is named FACT_ROW_ID.

Table Name	Primary Key Name	Foreign Key Usage
DX_ODS_EVENT_STATUS	EVENT_STATUS_ID	Used as a foreign key in the following tables: - DX_ODS_EVENT_FACTS
DX_ODS_EVENT_TYPE	EVENT_TYPE_ID	Used as a foreign key in the following tables: - DX_ODS_EVENT_FACTS
DX_ODS_PARTNER	PARTNER_ID	Used as a foreign key in the following tables: - DX_ODS_ACCOUNT - DX_ODS_EVENT_FACTS
DX_ODS_TIME_BREAKDOWN	TIMESLICE	Not used.

In addition to the fact tables and dimension tables, the operational data store contains user access tables. There are no direct relationships between the user access tables and the other tables. You use the user access tables to restrict access to specific information in the operational data store.

The following figure shows the user access tables:



In the figure, each table displays the column names and key types. Columns that function as primary keys are underlined.

The operational data store schema contains the following user access tables:

- DX\_ODS\_USER\_ACCESS table
- DX\_ODS\_USER\_EVENT\_TYPE table
- DX\_ODS\_USER\_SUPER table

### CHAPTER 2

## **Fact Tables**

This chapter includes the following topics:

- Fact Tables Overview, 10
- DX\_ODS\_EVENT\_FACTS Table, 10
- DX\_ODS\_CUSTOM\_FACTS Table, 12

### **Fact Tables Overview**

Fact tables contain aggregated event information based on default and custom KPIs. Default KPIs provide information about events according to the basic event properties, such as processing time or number of events. You create custom KPIs from event attributes that you define in the Operation Console. The attribute value may represent any numeric data that you want to aggregate, such as sales figures or the amount of insurance claims.

## DX\_ODS\_EVENT\_FACTS Table

The DX\_ODS\_EVENT\_FACTS table contains aggregated information about events that B2B Data Exchange processes.

#### Oracle Server DX\_ODS\_EVENT\_FACTS Table

The following table describes the columns and data types of the DX\_ODS\_EVENT\_FACTS table in the Oracle server:

Column Name	data type	Description
ROW_ID*	NUMBERPS(38,0), NOT NULL	Numeric identifier for the row that contains aggregated information for the events.
TIMESLICE	CHAR(10), NOT NULL	Start date and time of the interval during which B2B Data Exchange processed events for each time frame.
EVENT_TYPE_ID	NUMBERPS(19,0), NOT NULL	Unique identifier for the event type.

Column Name	data type	Description
EVENT_STATUS_ID	NUMBERPS(19,0), NOT NULL	Unique identifier for the event status.
PARTNER_ID	NUMBERPS(19,0)	Unique identifier for the related partner.
ACCOUNT_ID	NUMBERPS(19,0)	Unique identifier for the related account.
ACCESS_ID*	NUMBERPS(19,0)	Unique identifier for the access role. The identifier is generated and does not represent the access role name in the Operation Console
EVENT_COUNT	NUMBERPS(19,0), NOT NULL	Number of events that B2B Data Exchange processed during the time frame.
TOTAL_PROCESSING_TIME	BINARY_DOUBLE, NOT NULL	Total time that it took for B2B Data Exchange to process all events during the time frame.
MIN_PROCESSING_TIME	BINARY_DOUBLE, NOT NULL	Shortest time in miliseconds that it took for B2B Data Exchange to process an event.
MAX_PROCESSING_TIME	BINARY_DOUBLE, NOT NULL	Longest time in miliseconds that it took for B2B Data Exchange to process an event during the time frame.
TOTAL_DELAYED_TIME	FLOAT(53), NOT NULL	Total delay time in miliseconds for the B2B Data Exchange to process an event during the time frame.
* Primary key.		

### SQL Server DX\_ODS\_EVENT\_FACTS Table

The following table describes the columns and data types of the DX\_ODS\_EVENT\_FACTS table in the SQL server:

Column Name	data type	Description
ROW_ID*	NUMERIC (38,0), NOT NULL	Numeric identifier for the row that contains aggregated information for the events.
TIMESLICE	DATETIME2, NOT NULL	Start date and time of the interval during which B2B Data Exchange processed events for each time frame.
EVENT_TYPE_ID	NUMERIC(19,0), NOT NULL	Unique identifier for the event type.
EVENT_STATUS_ID	NUMERIC(19,0), NOT NULL	Unique identifier for the event status.
PARTNER_ID	NUMERIC(19,0)	Unique identifier for the related partner.
ACCOUNT_ID	NUMERIC(19,0)	Unique identifier for the related account.
ACCESS_ID*	NUMERIC(19,0)	Unique identifier for the access role. The identifier is generated and does not represent the access role name in the Operation Console

Column Name	data type	Description
EVENT_COUNT	NUMERIC(19,0), NOT NULL	Number of events that B2B Data Exchange processed during the time frame.
TOTAL_PROCESSING_TIME	FLOAT(53), NOT NULL	Total time that it took for B2B Data Exchange to process all events during the time frame.
MIN_PROCESSING_TIME	FLOAT(53), NOT NULL	Shortest time in miliseconds that it took for B2B Data Exchange to process an event.
MAX_PROCESSING_TIME	FLOAT(53), NOT NULL	Longest time in miliseconds that it took for B2B Data Exchange to process an event during the time frame.
TOTAL_DELAYED_TIME	FLOAT(53), NOT NULL	Total delay time in miliseconds for the B2B Data Exchange to process an event during the time frame.
* Primary key.		

## DX\_ODS\_CUSTOM\_FACTS Table

The DX\_ODS\_CUSTOM\_FACTS table contains information about values of event attributes that you select from the Operation Console to use in reports. The attribute values may represent any numeric data that you want to aggregate and use in custom Dashboard panels.

### Oracle Server DX\_ODS\_CUSTOM\_FACTS Table

The following table describes the columns and data types of the DX\_ODS\_CUSTOM\_FACTS table in the Oracle server:

Column Name	data type	Description
FACT_ROW_ID*	NUMBERPS(38,0), NOT NULL	Numeric identifier for the row that contains aggregated information for the custom event attribute.
EVENT_ATTRIBUTE_ID*	NUMBERPS(19,0), NOT NULL	Unique identifier for the event attribute to use in reports.
TIMESLICE	CHAR(10), NOT NULL	Start date and time of the interval during which B2B Data Exchange processed events for each time frame.
VALUE_SUM	NUMBER(8), NOT NULL	Total sum of the custom event attribute values that B2B Data Exchange processed during the time frame. For example, 2,000,000 is the total amount in dollars of insurance claims that B2B Data Exchange processed in one day.
VALUE_COUNT	NUMBER(8), NOT NULL	Total number of the custom event attribute values that B2B Data Exchange processed during the time frame. For example, B2B Data Exchange processed 10,000 insurance claims in one day.

Column Name	data type	Description
VALUE_MIN	NUMBER(8), NOT NULL	Lowest value that B2B Data Exchange processed during the time frame. For example, \$5,000 is the lowest insurance claim in dollars that B2B Data Exchange processed in one day.
VALUE_MAX	NUMBER(8), NOT NULL	Highest value that B2B Data Exchange processed during the time frame. For example, \$500,000 is the highest insurance claim in dollars that B2B Data Exchange processed in one day.
* Primary key.		

### SQL Server DX\_ODS\_CUSTOM\_FACTS Table

The following table describes the columns and data types of the DX\_ODS\_CUSTOM\_FACTS table in the SQL server:

Column Name	data type	Description
FACT_ROW_ID*	NUMERIC(38,0), NOT NULL	Numeric identifier for the row that contains aggregated information for the custom event attribute.
EVENT_ATTRIBUTE_ID*	NUMERIC(19,0), NOT NULL	Unique identifier for the event attribute to use in reports.
TIMESLICE	DATETIME2, NOT NULL	Start date and time of the interval during which B2B Data Exchange processed events for each time frame.
VALUE_SUM	FLOAT, NOT NULL	Total sum of the custom event attribute values that B2B Data Exchange processed during the time frame. For example, 2,000,000 is the total amount in dollars of insurance claims that B2B Data Exchange processed in one day.
VALUE_COUNT	FLOAT, NOT NULL	Total number of the custom event attribute values that B2B Data Exchange processed during the time frame. For example, B2B Data Exchange processed 10,000 insurance claims in one day.
VALUE_MIN	FLOAT, NOT NULL	Lowest value that B2B Data Exchange processed during the time frame. For example, \$5,000 is the lowest insurance claim in dollars that B2B Data Exchange processed in one day.
VALUE_MAX	FLOAT, NOT NULL	Highest value that B2B Data Exchange processed during the time frame. For example, \$500,000 is the highest insurance claim in dollars that B2B Data Exchange processed in one day.
* Primary key.		

### CHAPTER 3

## **Dimension Tables**

This chapter includes the following topics:

- Dimension Tables Overview, 14
- DX\_ODS\_ACCOUNT Table, 14
- DX\_ODS\_CUSTOM\_FACTS\_EAV Table, 15
- DX\_ODS\_EVENT\_STATUS Table, 16
- DX\_ODS\_EVENT\_TYPE Table, 17
- DX\_ODS\_PARTNER Table, 18
- DX\_ODS\_TIME\_BREAKDOWN Table, 18

### **Dimension Tables Overview**

Dimension tables contain additional metadata that you can use to filter the information from the fact tables. Dimension tables store descriptive information about event properties, such as the related partner, account, or event type.

## DX\_ODS\_ACCOUNT Table

The DX\_ODS\_ACCOUNT table contains information about accounts and the related partners in B2B Data Exchange.

#### Oracle Server DX\_ODS\_ACCOUNT Table

The following table describes the columns and data types of the DX\_ODS\_ACCOUNT table in the Oracle server:

Column Name	data type	Description
PARTNER_ID	NUMBERPS(19,0), NOT NULL	Unique identifier for the related partner.
ACCOUNT_ID*	NUMBERPS(19,0), NOT NULL	Unique identifier for the related account.
ACCOUNT_NAME	VARCHAR2(255), NOT NULL	Name of the account.

Column Name	data type	Description
ACCOUNT_NUMBER	VARCHAR2(255) NOT NULL	Number for the account.
* Primary key, Used in the DX_ODS_EVENT_EACTS table as a foreign key		

#### SQL Server DX\_ODS\_ACCOUNT Table

The following table describes the columns and data types of the DX\_ODS\_ACCOUNT table in the SQL server:

Column Name	data type	Description
PARTNER_ID	NUMBERIC(19,0), NOT NULL	Unique identifier for the related partner.
ACCOUNT_ID*	NUMBERIC(19,0), NOT NULL	Unique identifier for the related account.
ACCOUNT_NAME	VARCHAR(255), NOT NULL	Name of the account.
ACCOUNT_NUMBER	VARCHAR(255) NOT NULL	Number for the account.
* Primary key. Used in the DX_ODS_EVENT_FACTS table as a foreign key.		

## DX\_ODS\_CUSTOM\_FACTS\_EAV Table

The DX\_ODS\_CUSTOM\_FACTS\_EAV table contains information about custom event attributes that you select to use in reports.

### Oracle Server DX\_ODS\_CUSTOM\_FACTS\_EAV Table

The following table describes the columns and data types of the DX\_ODS\_CUSTOM\_FACTS table in the Oracle server:

Column Name	data type	Description
ID	NUMBERPS(19,0), NOT NULL	Unique identifier of the custom event attribute.
PROPERTY_KEY*	VARCHAR2(255), NOT NULL	Name of the custom event attribute.
* Primary key.		

### SQL Server DX\_ODS\_CUSTOM\_FACTS\_EAV Table

The following table describes the columns and data types of the DX\_ODS\_CUSTOM\_FACTS table in the SQL server:

Column Name	data type	Description
ID	NUMBERIC(19,0), NOT NULL	Unique identifier of the custom event attribute.
PROPERTY_KEY*	VARCHAR(255), NOT NULL	Name of the custom event attribute.
* Primary key.		

## DX\_ODS\_EVENT\_STATUS Table

The DX\_ODS\_EVENT\_STATUS table contains information about the status of events that B2B Data Exchange processes.

#### Oracle Server DX\_ODS\_EVENT\_STATUS Table

The following table describes the columns and data types of the DX\_ODS\_EVENT\_STATUS table in the Oracle server:

Column Name	data type	Description
EVENT_STATUS_ID*	NUMBERPS(19,0), NOT NULL	Unique identifier for the event status.
EVENT_STATUS_NAME	VARCHAR2(255)	Name of the event status.
ERROR_FLAG	NUMBERPS(1,0), NOT NULL	Indicates whether the event reached an error state.
FINAL_FLAG	NUMBERPS(1,0), NOT NULL	Indicates whether the event reached a final state.
* Primary key. Used in the DX_ODS_EVENT_FACTS table as a foreign key.		

#### SQL Server DX\_ODS\_EVENT\_STATUS Table

The following table describes the columns and data types of the DX\_ODS\_EVENT\_STATUS table in the SQL server:

Column Name	data type	Description
EVENT_STATUS_ID*	NUMBERIC(19,0), NOT NULL	Unique identifier for the event status.
EVENT_STATUS_NAME	VARCHAR(255)	Name of the event status.
ERROR_FLAG	NUMBERIC(1,0), NOT NULL	Indicates whether the event reached an error state.

·	Description
FINAL_FLAG NUMBERIC(1,0), NOT NULL Indi	ndicates whether the event reached a final state.

<sup>\*</sup> Primary key. Used in the DX\_ODS\_EVENT\_FACTS table as a foreign key.

## DX\_ODS\_EVENT\_TYPE Table

The DX\_ODS\_EVENT\_TYPE table contains information about the type of events that B2B Data Exchange processes.

### Oracle Server DX\_ODS\_EVENT\_TYPE Table

The following table describes the columns and data types of the DX\_ODS\_EVENT\_TYPE table in the Oracle server:

Column Name	data type	Description
EVENT_TYPE_ID*	NUMBERPS(19,0), NOT NULL	Unique identifier for the event type.
EVENT_TYPE_NAME	VARCHAR2(255)	Name of the event type.
* Primary key. Used in the DX_ODS_EVENT_FACTS table as a foreign key.		

#### SQL Server DX\_ODS\_EVENT\_TYPE Table

The following table describes the columns and data types of the DX\_ODS\_EVENT\_TYPE table in the SQL server:

Column Name	data type	Description
EVENT_TYPE_ID*	NUMBERIC(19,0), NOT NULL	Unique identifier for the event type.
EVENT_TYPE_NAME	VARCHAR(255)	Name of the event type.

<sup>\*</sup> Primary key. Used in the DX\_ODS\_EVENT\_FACTS table as a foreign key.

## DX\_ODS\_PARTNER Table

The DX\_ODS\_PARTNER table contains information about the partners for which B2B Data Exchange processes events.

### Oracle Server DX\_ODS\_PARTNER Table

The following table describes the columns and data types of the DX\_ODS\_PARTNER table in the Oracle server:

Column Name	data type	Description
PARTNER_ID*	NUMBERPS(19,0), NOT NULL	Unique identifier for the related partner.
PARTNER_NAME	VARCHAR2(255)	Name of the related partner.
* Primary key. Used in the DX_ODS_EVENT_FACTS table as a foreign key.		

#### SQL Server DX\_ODS\_PARTNER Table

The following table describes the columns and data types of the DX\_ODS\_PARTNER table in the SQL server:

Column Name	data type	Description
PARTNER_ID*	NUMBERIC(19,0), NOT NULL	Unique identifier for the related partner.
PARTNER_NAME	R_NAME VARCHAR(255) Name of the related partner.	
* Primary key. Used in the DX_ODS_EVENT_FACTS table as a foreign key.		

## DX\_ODS\_TIME\_BREAKDOWN Table

The DX\_ODS\_TIME\_BREAKDOWN table contains information about the time frames during which B2B Data Exchange processes events.

#### Oracle Server DX\_ODS\_TIME\_BREAKDOWN Table

The following table describes the columns and data types of the DX\_ODS\_TIME\_BREAKDOWN table in the Oracle server:

Column Name	data type	Description
TIMESLICE*	CHAR(10), NOT NULL	Start date and time of the interval during which B2B Data Exchange processed events for each time frame.
SECONDS_FROM_MIDNIGHT	NUMBERPS(5,0), NOT NULL	Number of seconds from the beginning of the calendar day.

Column Name	data type	Description
WEEK_OF_YEAR	NUMBERPS(2,0), NOT NULL	Number of the week in the calendar year. For example, the first week of January is week 1.
DAY_OF_MONTH	NUMBERPS(2,0), NOT NULL	Calendar date of the day. For example, March 23rd is day 23.
MONTH_OF_YEAR	NUMBERPS(2,0), NOT NULL	Calendar month of the year. For example, June is month 6.
YEAR	NUMBERPS(5,0), NOT NULL	Calendar year, such as 2011.
* Primary key.		

### SQL Server DX\_ODS\_TIME\_BREAKDOWN Table

The following table describes the columns and data types of the DX\_ODS\_TIME\_BREAKDOWN table in the SQL server:

Column Name	data type	Description
TIMESLICE*	DATETIME2(10), NOT NULL	Start date and time of the interval during which B2B Data Exchange processed events for each time frame.
SECONDS_FROM_MIDNIGHT	NUMBERIC(5,0), NOT NULL	Number of seconds from the beginning of the calendar day.
WEEK_OF_YEAR	NUMBERIC(2,0), NOT NULL	Number of the week in the calendar year. For example, the first week of January is week 1.
DAY_OF_MONTH	NUMBERIC(2,0), NOT NULL	Calendar date of the day. For example, March 23rd is day 23.
MONTH_OF_YEAR	NUMBERIC(2,0), NOT NULL	Calendar month of the year. For example, June is month 6.
YEAR_	NUMBERIC(5,0), NOT NULL	Calendar year, such as 2011.
* Primary key.		

### CHAPTER 4

## **User Access Tables**

This chapter includes the following topics:

- User Access Tables Overview, 20
- DX\_ODS\_USER\_ACCESS Table, 20
- DX\_ODS\_USER\_EVENT\_TYPE Table, 21
- DX\_ODS\_USER\_SUPER Table, 21

### **User Access Tables Overview**

User access tables contain information about B2B Data Exchange security restrictions for specific event dimensions. User access tables store user information according to the access role and the type of information that the users view.

## DX\_ODS\_USER\_ACCESS Table

The DX\_ODS\_USER\_ACCESS table contains information about B2B Data Exchange users and the access level to events that the Dashboard panels display in the Operation Console.

The following table describes the columns and data types of the DX\_ODS\_USER\_ACCESS table:

Column Name	data type	Description
USER_ID*	NUMBERPS(19,0), NOT NULL	Unique identifier for the Operation Console user that can view specific information from the operational data store in Dashboard panels. The identifier is generated and does not represent the login name for the user.
ACCESS_ID*	NUMBERPS(19,0), NOT NULL	Unique identifier for the Operation Console access role.
* Primary key.		

## DX\_ODS\_USER\_EVENT\_TYPE Table

The DX\_ODS\_USER\_EVENT\_TYPE table contains information about B2B Data Exchange users and the event types that they can view in the Dashboard panels of the Operation Console.

The following table describes the columns and data types of the DX\_ODS\_USER\_EVENT\_TYPE table:

Column Name	data type	Description
USER_ID*	NUMBERPS(19,0), NOT NULL	Unique identifier for the Operation Console user that can view specific event types from the operational data store in Dashboard panels. The identifier is generated and does not represent the login name for the user.
EVENT_TYPE_ID*	NUMBERPS(19,0), NOT NULL	Unique identifier for the event type.
* Primary key.		

## DX\_ODS\_USER\_SUPER Table

The DX\_ODS\_USER\_SUPER table contains information about V users that can access all of the information that the Dashboard panels display in the Operation Console.

The following table describes the columns and data types of the DX\_ODS\_USER\_SUPER table:

Column Name	data type	Description
USER_ID*	NUMBERPS(19,0), NOT NULL	Unique identifier for the Operation Console user that can access all of the information in the operational data store. This user is typically the B2B Data Exchange administrator. The identifier is generated and does not represent the login name for the user.
* Primary key.		

### APPENDIX A

# Examples

This appendix includes the following topic:

• SQL Query Examples, 22

## **SQL Query Examples**

You access and retrieve information from the operational data store with SQL queries according to the type of report or analysis that you want to perform. The following examples show SQL queries that run on the operational data store to retrieve information for different reports.

#### **Number of Events by Partner**

Gets the total number of events that B2B Data Exchange processed during a time frame and displays the results sorted by the related partner for the event.

The query uses the to\_timestamp parameter that defines the event processing start and end date and time.

The following table shows an example of the query results:

PARTNER_ID	PARTNER_NAME	SUM_COUNT
1000	My partner A	14781
1002	My partner C	12920
1001	My partner B	65044

#### Number of Events by Partner with Access Restrictions

Gets the total number of events that B2B Data Exchange processed during a time frame and displays the results sorted by the related partner for the event. This query also applies access restrictions by indicating which B2B Data Exchange users can view the results.

```
select topData.PARTNER ID, dp.PARTNER NAME, topData.SUM COUNT from
     (select facts.PARTNER_ID, sum(EVENT_COUNT) as SUM_COUNT
        from DX ODS EVENT FACTS facts
        where to timestamp('2012-01-01' || '00:00:00','YYYYY-MM-DD HH24:MI:SS') <=
facts.TIMESLICE
         and facts.TIMESLICE <= to timestamp('2012-06-01' || '00:00:00','YYYY-MM-
DD HH24:MI:SS')
         and (exists (select ua.ACCESS ID from DX ODS USER ACCESS ua where
ua.ACCESS ID =
               facts.ACCESS ID and ua.USER ID = 999)
               or exists (select * from DX ODS USER SUPER ua where ua. USER ID = 999)
        group by facts.PARTNER ID
       order by SUM_COUNT desc
     ) topData
join DX ODS PARTNER dp on topData.PARTNER ID = dp.PARTNER ID
order by topData.SUM COUNT desc, dp.PARTNER NAME asc
```

The query uses the following parameters:

- · to\_timestamp. Defines the event processing start and end date and time.
- USER\_ID. Numeric identifier for the B2B Data Exchange user that can view the events. In this example, you define a single user that can view the events.

The following table shows an example of the query results:

PARTNER_ID	PARTNER_NAME	SUM_COUNT
1000	My partner A	14781
1002	My partner C	12920
1001	My partner B	65044

#### **Custom KPI Query with Event Attribute Value**

Gets the value of the ClaimValue event attribute and displays total claim value amount for the time frame grouped by the related partner for the event.

```
DEFINE fromDate = to timestamp('01-03-2012 00.00.00', 'DD-MM-YYYY HH24.MI.SS.FF');
DEFINE toDate = to timestamp('05-03-2012 23.59.59.00', 'DD-MM-YYYY HH24.MI.SS.FF');
DEFINE eventAtt = "'ClaimValue'";
SELECT p.PARTNER ID,
     NVL (VALUE SUM, 0) AS VALUE SUM
     (SELECT p.PARTNER ID,
          SUM (VALUE SUM) AS VALUE SUM
          FROM DX_ODS_CUSTOM FACTS of
          JOIN DX ODS EVENT FACTS ef
          ON ef.\overline{ROW} \overline{ID} = cf.\overline{FACT} \overline{ROW} \overline{ID}
          JOIN DX ODS PARTNER p
          ON ef.PARTNER ID = p.PARTNER ID
          JOIN DX_ODS_CUSTOM_FACTS_EAV cfe
         ON cf.EVENT ATTRIBUTE ID = cfe.ID
WHERE cf.TIMESLICE >= &fromDate
AND cf.TIMESLICE < &toDate
          GROUP BY p.PARTNER ID
    ) SUM ATT
RIGHT JOIN DX ODS PARTNER p
ON SUM ATT. PARTNER ID = p. PARTNER ID
```

The query uses the following parameters:

- fromDate. Defines the claim value processing start date and time.
- toDate. Defines the claim value processing end date and time.
- eventAtt. Name of the event attribute from which to get the value.

The following table shows an example of the query results:

PARTNER_ID	VALUE_SUM
1000	544
1002	1060
1001	865

# INDEX

DX_ODS_ACCOUNT description 14 DX_ODS_CUSTOM_FACTS	DX_ODS_USER_EVENT_TYPE description <u>21</u> DX_ODS_USER_SUPER description <u>21</u>
description <u>12</u> DX_ODS_CUSTOM_FACTS_EAV	F
description 15 DX_ODS_EVENT_FACTS	examples
description 10 DX_ODS_EVENT_STATUS	SQL queries <u>22</u>
description <u>16</u> DX_ODS_EVENT_TYPE	0
description <u>17</u> DX_ODS_PARTNER	operational data store schema
description 18 DX_ODS_TIME_BREAKDOWN	definition <u>6</u> relationships <u>8</u> structure 8
description 18 DX_ODS_USER_ACCESS description 20	structule <u>o</u>