UNANET WHITE PAPER

Unanet DataLake Technical Brief

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PURPOSE

This document will briefly describe the concepts behind the Unanet DataLake offering and give the reader a good understanding of the technical aspects of the service.

WHAT IS UNANET DATALAKE?

Simply put, Unanet's DataLake is the easy-to-consume solution allowing you to use your Business Intelligence tools without much technical know-how or data integrity maintenance. The data available to you through DataLake is a near real-time, read replica of your production data. This ensures that your data is safe (no updates/deletes possible) and up to date.

The Unanet DataLake service allows existing Unanet customers to securely gain read-only access to the data in their Unanet GovCon and CRM systems.

WHY WOULD I NEED DATALAKE?

The ability to mine this data allows companies to visualize the areas of their business that are doing well, the areas that need attention, or both. Possibilities include creating customized metrics dashboards in Tableau, actionable reports from Microsoft Power BI, or even using your own program, written in Java, .Net, etc., to leverage the real-time data in your system to make critical decisions for your business.

Since these tools typically have access to other data as well, you can combine your Unanet data with data from other systems to get an even bigger picture of the overall health of your business.

HOW DOES IT WORK?

There are three main components required to make DataLake work for you: Your Unanet database, a middle tier software, and your Business Intelligence tool of choice. Unanet handles the first two, so all you really need to configure is your BI tool.

YOUR BI TOOL

- Once you have been provisioned, you will use your BI tool to connect to a middle tier service which handles authentication, access, and security. Unanet DataLake was created with tools like Microsoft's Power BI in mind, but really any tool that can utilize either an ODBC or a JDBC connector should work. All you will need to do is establish a data source in your BI tool. Instructions for this may vary depending on what tool you are using.

THE MIDDLE TIER

- This middle tier service will evaluate your credentials and authenticate you, and it also controls what data you are allowed to see. It is important to note that you never connect directly to your database, only the middle tier. Once you have been authenticated, the service will determine who you are and what data you have access to.

YOUR UNANET DATABASE

- The data itself comes from a read-replica of your actual production data, so you will always have the freshest, up-to-date data possible. Since it's a replica, your DataLake queries will not impact your transactional database, something the rest of your users will greatly appreciate.

WHAT ARE THE STEPS REQUIRED FOR SETUP?

Once you become a Unanet DataLake subscriber, the following steps are necessary to allow you to begin taking advantage of the service:

1. You will Download, install, and configure an appropriate ODBC or JDBC driver, depending on the tool(s) you will be using to access your data. See the appropriate section on installing and configuring drivers below.
2. Unanet will provision one or more accounts which will be used by your tools to securely connect to the Unanet DataLake service. For this set, all you need to do is provided Unanet support with the first name, last name, and email address of users you want to be able to connect to the DataLake service. This can be just one contact, or several depending on the size of your data analytics team responsible for interfacing with DataLake.
3. You will configure your tool (Power BI, Tableau, or any tool that utilizes JDBC or ODBC drivers) to connect to the service as a data source.
4. You can then create reports, visualizations, etc. based on near real-time data from your Unanet systems.

Don't worry, Unanet will be with you every step of the way to make sure your connection to DataLake is successful! Our Cloud team will answer any questions you may have and help you get connected.

WHAT DATA IS AVAILABLE?

Once you become a Unanet DataLake subscriber, the following steps are necessary to allow you to begin taking advantage of the service:

Unanet DataLake makes read-only data models available to you based on your Unanet products:

UNANET GOVCON

- All tables and views in the system

UNANET CRM

- Curated views exclusively created for DataLake

Windows ODBC Installation

Download and Install the ODBC Driver

1. The ODBC driver can be found at https://dv.unanet.biz/downloads.html

2. On the Downloads page:
   a) Click **Download** under the ODBC Driver section.

   b) Select **Windows, x86-64** to download the file.

3. Once downloaded, click on **datavirtualityODBC_x64.msi** and follow the instructions to install the ODBC Driver.

Add New DSN

4. Open ODBC Data Sources Application

5. Select **Add**...

6. Select **DataVirtuality ANSI(x64)** from list.

7. Driver setup:

   - Data Source: Unanet
   - Database: datavirtuality
   - Server: data.unanet.biz
   - SSL Mode: required
   - Port: **35433**
   - Username & Password: provided by Unanet
   - Select **Test** to test the connection

Connect With Power BI

8. Open Power BI Desktop and select **Get Data**.

9. In the search bar, type **ODBC**, then select **ODBC** from the results and click **Connect**.

10. In the ODBC window, select your newly added **Data Source Name** (DSN) from the dropdown list and click **OK**.

11. When prompted, enter the login credentials provided by Unanet.

Other Considerations

For some BI-Tools like Cognos, MicroStrategy and Tableau need special configuration files to work properly with Data Virtuality Server. Download the zip archive and install according to the manual.

https://dv.unanet.biz/bitools/BI-Tools-Configuration-Files.zip

Mac ODBC Installation

iODBC

- Install latest stable version from here: http://www.iodbc.org/dataspace/doc/iodbc/wiki/iodbcWiki/Downloads

Data Virtuality ODBC Driver

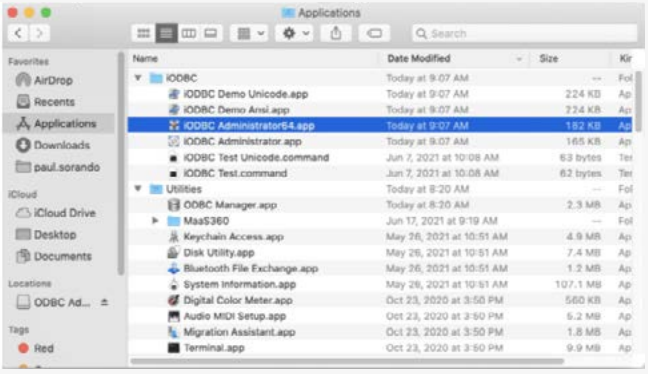
- Download **DataVirtualityODBCforMacOS.zip** from Data Virtuality Server Download section.
- Unzip the Archive. Copy the **'DataVirtualityODBC'** folder to /Library/ODBC/ODBCDataSources

Install Driver

- Install driver in **/Library/ODBC/odbcinst.ini** by following these instructions.

Start the iODBC Manager

- Finder ➜ Applications ➜ iODBC ➜ iODBCAdministrator.app



- Select ODBC Drivers → Add
  - Description of Driver = Data Virtuality ODBC Driver
  - Driver File Name = /Library/ODBC/ODBCDataSources/DataVirtualityODBC/dvodbcw.so

- Select The /Library/ODBC/odbcinst.ini file should look like this
  - [ODBC Drivers]
  - Data Virtuality ODBC Driver = Installed

- [Data Virtuality ODBC Driver]
  - Driver = /Library/ODBC/ODBCDataSources/DataVirtualityODBC/dvodbcw.so

Configure the driver

In the iODBC Admin Application:

- Select System DNS – Add
- Select the Data Virtuality Driver

Data Source Name = Data Virtuality ODBC Drive

Description = Unanet Data Lake

Add Key Value Pairs:

- Driver = /Library/ODBC/ODBCDataSources/ DataVirtualityODBC/dvodbcw.so
- Description = Unanet DataLake
- database = datavirtuality
- servername = data.unanet.biz
- port = 35433
- sslMode = require
- username = datalake (or username provided)

The file /Library/ODBC/odbc.ini should look like this:

[ODBC Data Sources]

Datalake = Data Virtuality ODBC Driver

[Datalake]

Driver = /Library/ODBC/ODBCDataSources/DataVirtualityODBC/dvodbcw.so

Description = Unanet DataLake

database = datavirtuality

servername = data.unanet.biz

port = 35433

sslMode = require

username = datalake

Test the Connection in the iODBC Admin App

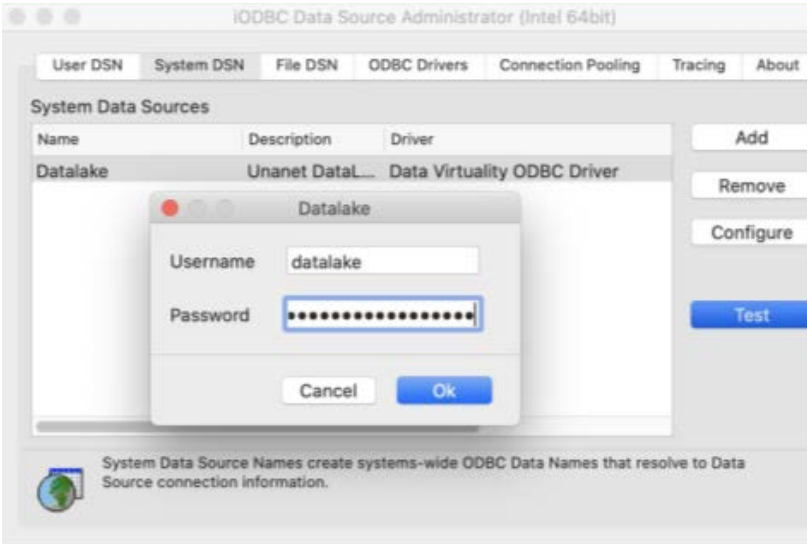


Tableau Instructions (JDBC)

Download the JDBC Driver

- Download the latest jar file from https://dv.unanet.biz/downloads.html

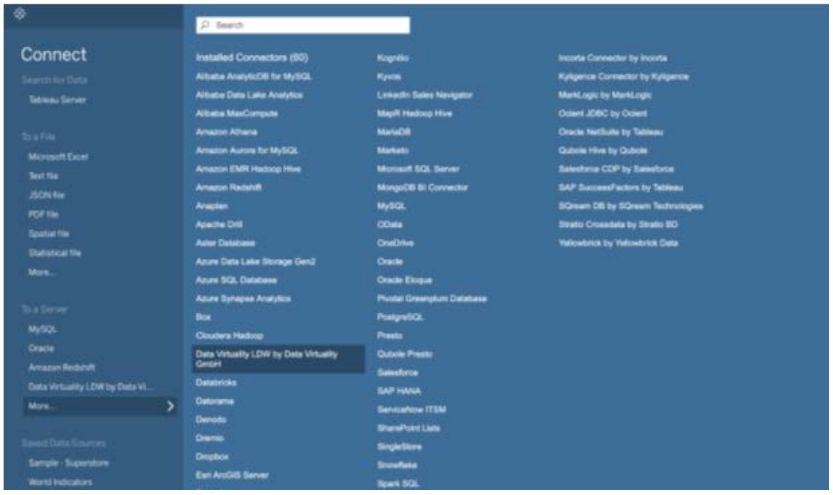
Download the taco file

- Download the taco file: **datavirtuality_jdbc.taco** per instructions from Unanet support (ask if you need this file).

Deploy the Config Files

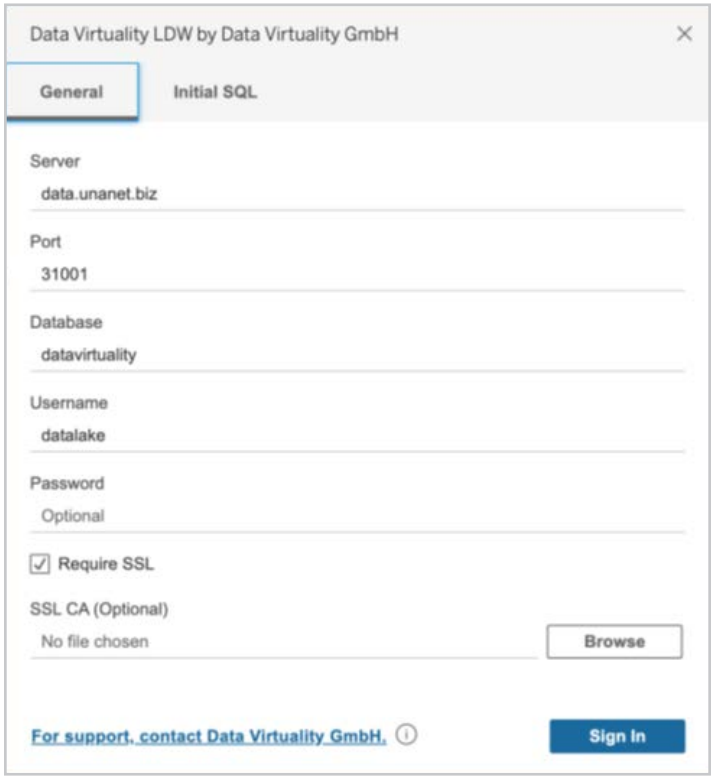
- Follow these instructions to deploy the files to the appropriate directories: https://extensiongallery.tableau.com/connectors/271?version=2021.1

- To connect under **"To a Server"** select "More..." **then "data Virtuality LDW by Data Virtuality GmbH"**



Enter the connection details:

- Server: data.unanet.biz
- Port: 31001
- Database: datavirtuality
- Username: Provided by Unanet
- Password: Provided by Unanet
- Check Require SSL



Unanet

Where Information Means Insight

Unanet serves more than 3600 businesses with its ERP software solutions purpose-built for professional service organizations. Unanet's software helps project-driven organizations reliably plan, track and manage projects, people and financials. Unanet's customer-centric culture means we strive to deliver insights with personal service.

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