Enable ODBC trace for PHP

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Enable ODBC Trace for PHP

Issue

How to enable ODBC trace on PHP where the application is hosted on Web App Service.

Case background

The customer is using a third party application which is based on PHP. The application connects to Azure SQL DB where the table has Always Encrypted columns configured. The application encounters errors on Insert operation.

[previous exception] [object] (PDOException(code: 22018): SQLSTATE[22018]: [Microsoft][ODBC Driver 17 for SQL Shg257') at /var/www/html/vendor/laravel/framework/src/Illuminate/Database/Connection.php:459)



The "Operand type clash" in the error message can be signs of that the application is not performing encryption and decryption at the client side.

See Always Encrypted: How it Works

Note that PHP scripts rely on ODBC drivers to make connections to SQL Server/Azure SQL DB.

Enable ODBC trace and download file (Windows)

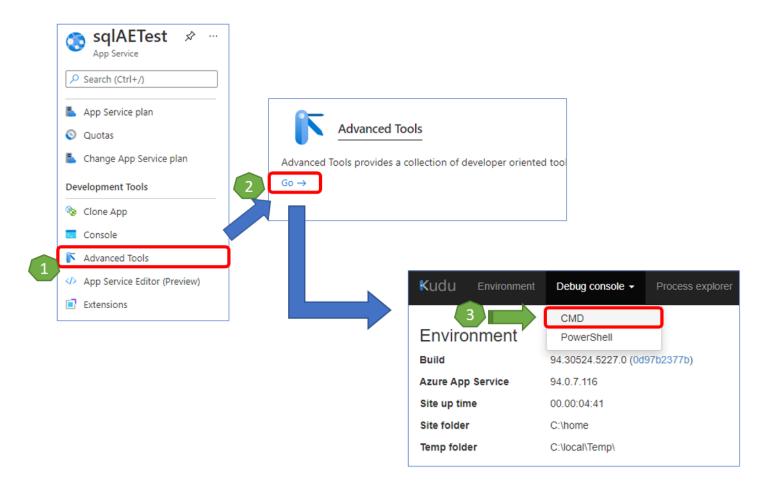
Specify "TraceOn" and "TraceFile" option in the PHP connection string as in the following example:

```
$connectionOptions = array(
"Database" => "<databaseName>",
"Uid" => "<userid>",
"PWD" => "<password>" ,
"ColumnEncryption" => "Enabled",
"TraceOn" => "1", "TraceFile" => "odbcTrace.txt"
```

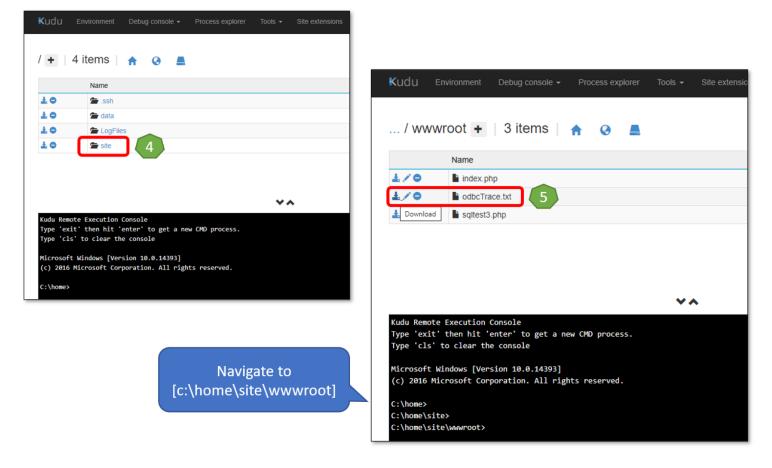
Ref: PHP Connection Options

Getting the ODBC trace file (Windows)

- 1. In Azure portal, navigate to your App Service, scroll down to Development Tools, select Advanced Tools.
- 2. Select Go on the Advanced Tools page.
- 3. Select CMD from the Debug console tab to bring up Kudu



- 4. Select the site link. Notice this will change the directory in the console. Continue this step until you get to the wwwroot directory. Once you reach the wwwroot directory, you should see the generated ODBC trace file.
- 5. Select the Download icon. This will display the contents of the trace file. Copy-paste the contents and save it to a local file.



Enable ODBC trace and download file (Linux)

Enable ODBC trace

Enable ODBC trace in PHP connection string. In this example we specify the path (/home/site/wwwroot/odbcTrace.txt) to ensure the output location.

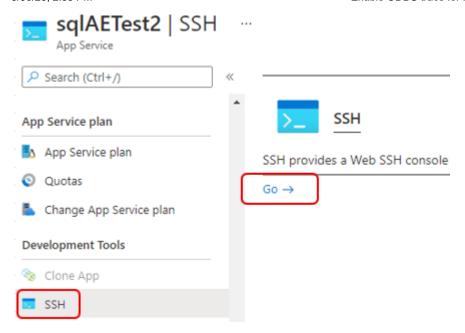
```
$connectionOptions = array(
"Database" => "<databaseName>",
"Uid" => "<userid>",
"PWD" => "<password>" ,
"ColumnEncryption" => "Enabled",
"TraceOn" => "1", "TraceFile" => "/home/site/wwwroot/odbcTrace.txt"
```

Download ODBC trace file (Linux)

Steps overview:

- 1. Confirm that the trace file is generated
- 2. Retrieve information to connect to the FTP site
- 3. Download the file through FTP

From Azure portal, go to App Service and select [Go] from the [Development Tools] blade.



An SSH console is launched on a new page

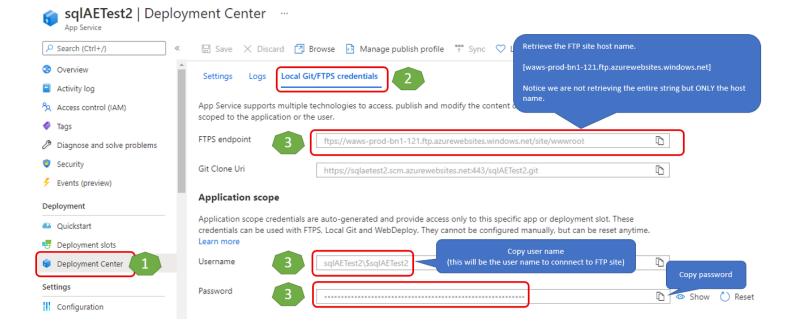


Go to the destination directory and confirm the trace file is generated.

- In this example we will use WINCSP to download the file from the FTP site.
- You will need the User Name and password to connect to the FTP site.

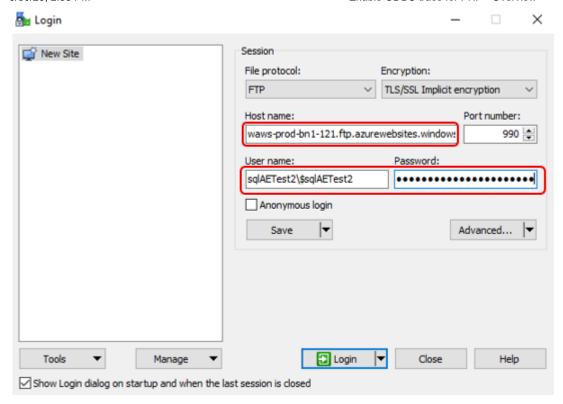
Here is how to get the information:

- 1. From App Service page, select [Deployment Center]
- 2. Select [Local Git/FTPS credentials] tab
- 3. Copy required information to connect to the FTP site:
 - FTP host name
 - User name and password



Launch WinCSP tool

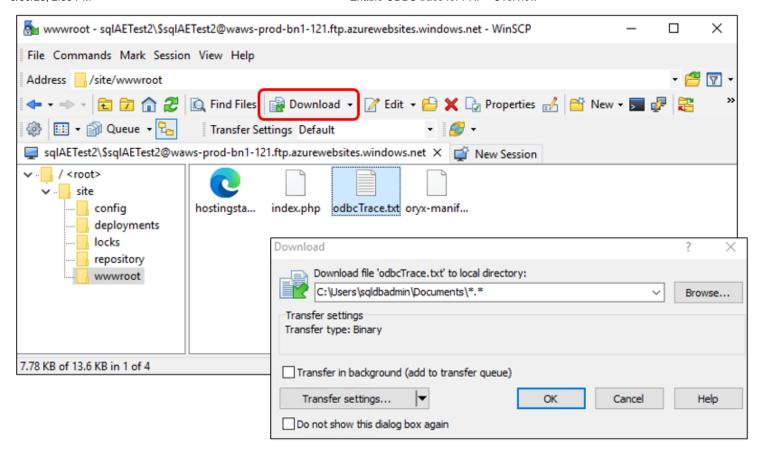
A login dialog is prompt when the WinCSP tool launches. Fill in the required information and select Login to connect to the FTP site.



Download trace file

Once connected to the FTP site, a file explorer dialog is displayed.

- In the left pane, navigate to the path where the trace file is located
- Select the trace file
- Select [Download] button to display the Download dialog
- Download the file to your local location



How good have you found this content?

