**CTA Opens its Tableau Dashboards to Communities’ Use !**

**With the motto**

**“Let your data shine on our Dashboard”**

We have many Tableau reports\dashboards that run on HMIS data. Each dashboard is bound to a specific data source which is created by taking an export from the HMIS of a community. Some communities afford to have these dashboards created and deployed for them on Tableau Online. But most don’t have the resources to have these dashboards run on their own data. They also don’t have Tableau Desktop and\or technical knowledge to do it themselves. They can greatly benefit from a web application interface to a platform (let’s call it DataShine) that lets them upload their homelessness CSV data (in HUD standard format) and immediately visualize it with one of our existing dashboards(e.g. Client Demographics) on Tableau Online.

Today many BI report developers build their reports from data sources which are based on standard data formats such as HUD HMIS CSV file format. Developers who build these reports usually don’t have access to other standard data sets owned by others. The data owners have their data in the same standard format with which the report was built to work, but they usually lack the resources to run the same report off of their data. DataShine Platform brings together the BI report and the relevant data set so that any report developed to work with a standard data format can be used to visualize any data set that conforms to the same data format. This facilitates the reuse of report templates without necessarily sharing the production data with the report developers. The following use case diagram illustrates how this platform can be used by report developers and data owners\analysts.

HUD CSV File standard format

Have data set conforming to

Report against

Workbook Template

**DATASHINE**

**PLATFORM**

Add Tableau Workbook as report template

Upload data set against selected workbook template

Developer Analyst

Upload Workbook and Data

Visualize Data

TABLEAU ONLINE

Use Case Scenario:

1. The community user(data owner\analyst) first selects a Dashboard from a list of available dashboards (e.g. Client Demographics) and consents to sharing data with us.
2. DataShine user fills a web form which simply asks for community name, contact email and a zip file that contains the HUD CSV files. The data in this file will be used in the selected Dashboard.
3. After file upload is complete, the user is given the option to remove the PII from the data source.
4. The application automatically creates a Tableau Online user account with viewer license. User completes the new user process by clicking the confirmation link in the email message .
5. The Application creates an instance of the selected Dashboard on Tableau Online, links its data source with the zip file, sets up user permissions such that only this user can see the dashboard.
6. The user is directed to the Tableau Online dashboard created in the previous step.
7. The user is given the option of purging the uploaded data and the dashboard instance at any time. It is deleted automatically after one month of inactivity.

Basic System Diagram:

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AWS RDS

Data Shine

2,

Tableau Online Web Services

Web Server on

AWS-EC2

4,5,7

Tableau Online Dashboards

Web Browser

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Note: The platform can, in fact, be used to support any flat file data source that Tableau supports including HUD CSV file format. Therefore, this is a generic solution which can be used across many applications and industries.

Each step in the application flow can be automated provided that Tableau Online API (<https://onlinehelp.tableau.com/current/online/en-us/dev_resources.htm>) supports the necessary operations. These include web services to:

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | Documentation exists | Feature tested by us |
| 1 | Add a new user account and set folder\permissions for it. | Yes, API | No |
| 2 | Publish Workbook\Data Source | Yes, API | No |
| 3 | Upload Data source | Yes, API | No |
| 4 | Replace Data source locally | Yes, Tableau Forum | Yes |
| 5 | Set Dashboard\Folder permissions | Yes, API | No |
| 6 | Delete Workbook | Yes, API | No |

Tableau Online API Calls:

|  |  |  |  |
| --- | --- | --- | --- |
| Authentication | [Sign In](https://onlinehelp.tableau.com/current/api/rest_api/en-us/REST/rest_api_ref.htm#sign_in) | Tested with curl |  |
| Projects | [Create Project](https://onlinehelp.tableau.com/current/api/rest_api/en-us/REST/rest_api_ref.htm#create_project) | Tested |  |
| Workbooks and Views | [Publish Workbook](https://onlinehelp.tableau.com/current/api/rest_api/en-us/REST/rest_api_ref.htm#publish_workbook),  [Delete Workbook](https://onlinehelp.tableau.com/current/api/rest_api/en-us/REST/rest_api_ref.htm#delete_workbook) | Tested |  |
| Permissions | [Add Data Source Permissions](https://onlinehelp.tableau.com/current/api/rest_api/en-us/REST/rest_api_ref.htm#add_data_source_permissions),  [Add Project Permissions](https://onlinehelp.tableau.com/current/api/rest_api/en-us/REST/rest_api_ref.htm#add_project_permissions),  [Add Workbook Permissions](https://onlinehelp.tableau.com/current/api/rest_api/en-us/REST/rest_api_ref.htm#add_workbook_permissions)  Add Default Permissions | Tested |  |
| Users and Groups | [Add User to Site](https://onlinehelp.tableau.com/current/api/rest_api/en-us/REST/rest_api_ref.htm#add_user_to_site) | Tested with curl |  |