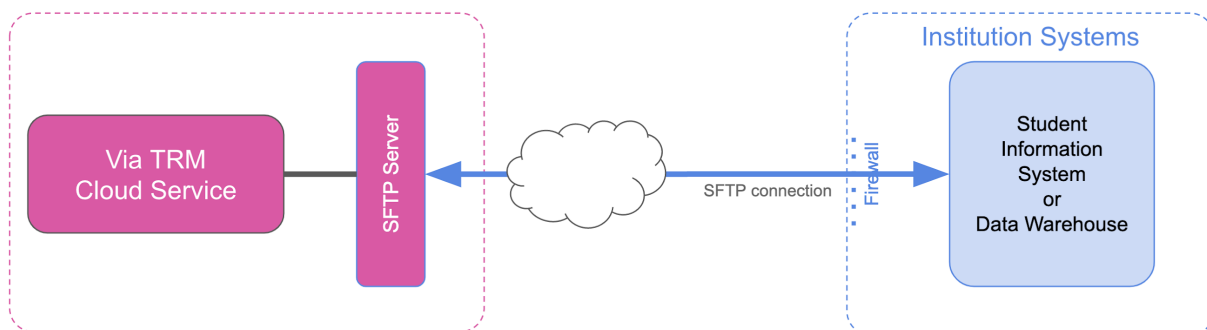# *Via* TRM SFTP SIS Integration
Technical Documentation for Institutions

Overview

Single SFTP server on the *Via* side

- Requests and responses are in a single SFTP server on the *Via* side
- A home directory will be created by *Via* with a name matching your assigned subdomain
- *Via* places requests in a CSV file in a /requests folder located in that home directory
- Institution places responses in a CSV file in a /responses folder located in that home directory

Timing and Request CSV Format

First Login

When a user logs in to *Via*, *Via* creates a request file containing a single email address for that user. That individual file is placed in the /requests directory on the server within 5 minutes of initial login.

> CSV filename:
> via_trm_student_<email>.csv

The <email> is the email address of the student that is included in the SSO attributes passed to *Via* when the student logs in.

Example:
via_trm_student_user@school.edu.csv

CSV data example:
(no header row)
user@school.edu

Nightly Batch

Once per night, *Via* creates a single request file containing a list of Email Addresses of every active traveler in the system, one per line. This file will be generated at 3am local time for each client.

CSV filename:
via_trm_students_YYYY-MM-DD.csv

Example:
via_trm_students_2019-07-25.csv

CSV data example:
(no header row)
user1@school.edu
user2@school.edu
user3@school.edu
user4@school.edu

Endpoints and Authentication

Via SFTP Server

Staging

Host: stage-upload.via-trm.com
Username: <same as your Via-assigned subdomain>
Public-Private key based authentication.

Requirements:

- Provide your IP address(es) that will be used to access the *Via* SFTP server so they can be added to the Via whitelist.
- *Via* will provide you a public/private key pair upon set up of server

Production

Host: upload.via-trm.com
Username: <same as your Via-assigned subdomain>
Public-Private key based authentication.

Requirements:
- Provide your IP address(es) that will be used to access the *Via* SFTP server so they can be added to the Via whitelist.
- *Via* will provide you a public/private key pair upon set up of server

Upload Directories

Single SFTP server on the *Via* side

- *Via* will upload request CSV files to /requests directory on the *Via* SFTP server as they are created.
- Upload your response CSV files to the /responses directory on the *Via* SFTP server.
- Once you process the file in the /requests directory you need to delete the request file.
- Once the response file is processed from the /responses directory *Via* TRM will remove the file.

CSV Response File Content and Format

Format

The response file should contain:

1. A header row naming the columns of the CSV
2. One row for each user containing the CSV data (see formatting/escaping notes below)
3. All rows should end in a Unix style line ending ("\n")

Example

```
first_name,last_name,major_1,year_in_school,countries_of_citizenship,current_address_line_1,hours_earned
Sally,Struthers,Spanish,Freshman,"US, GB","1247 Maple Road, Apt. 12",12
Johnny,O'Rourke,Business,Sophomore,CN,52 Echo Lane,42
```

Escaping

The CSV response file should be formatted and escaped according to the RFC4180
https://tools.ietf.org/html/rfc4180

Make sure that a column value that contains a comma is escaped appropriately
For instance, a column value for an address such as:

Incorrect:
1234 Hollywood Blvd, Apt 17

Correct:
"1234 Hollywood Blvd, Apt 17"

Make sure double quotes are escaped appropriately in the CSV file.

A name such as:
"Smith, James "Jim" Arnold"

Should be escaped as:
"Smith, James ""Jim"" Arnold"

CSV RFC:
https://tools.ietf.org/html/rfc4180

> 7. If double-quotes are used to enclose fields, then a double-quote
>   appearing inside a field must be escaped by preceding it with
>   another double quote. For example:
>
>   "Aaa","b""bb","ccc"

Testing

Testing will be completed using live users in both the Staging and Production environments. All testers will need to be able to login through the SSO for validation and to trigger the file creation process.

- The users should have a unique email address in your system that is sent in the SSO request
- The users should have data in your information system (to validate the data sync)
- A mix of student and faculty is required if you plan to sync faculty data.

SFTP Setup Checklist

- ❏ (Client) Decides on data fields to sync
- ❏ (Client) Provides *Via* with IP addresses
- ❏ (*Via*) Setup of servers on the *Via* side for Staging and production
- ❏ (Client) Test connection to both servers with the *Via* provided key pair
- ❏ (Client) Provide *Via* with a sample .csv of the file you will send to help verify formatting of file and data
- ❏ (*Via*) Creation of test files for processing in the /requests directory
- ❏ (Client) Send response files to the /responses directory for *Via* to process
- ❏ (*Via*) populates data from response files and verifies data
- ❏ (All) Move to production to complete final testing

Data

This is the full list of data elements that *Via* supports. It is not required to send data for all elements.

Via TRM UI Name	*Via* API Data Element	Example	Formatted Response Options
First Name	first_name	Charles	
Middle Name	middle_name	Jay	
Last Name	last_name	Smith	
Email	email	chad@example.com	
Secondary Email	personal_email	chad2@example2.com	
Preferred First Name	preferred_first_name	Chad	
Preferred Last Name	preferred_last_name	Smith	
Pronoun	pronoun	He	
Title	title	Mr.	
Student ID	student_id	N44512743	
Date of Birth	dob	2000-04-23	YYYY-MM-DD
Sex Assigned at Birth	sex	male	"male", "female", "other_sex"
Countries of Citizenship	countries_of_citizenship	US	Alpha2 Code
Visa Status	visa_description		
Honors Status	honors_status	Yes	"No", "Yes"
Ethnicity	ethnicity	Not Hispanic or Latino	"Hispanic/Latin of any race", "Not Hispanic or Latino"

Race	race	White	"American Indian or Alaska Native", "Black or African American", "White", "Do not know", "Asian", "Two or more", "Native Hawaiian or Other Pacific Islander"
Disability	disability	None	
Veteran Status	veteran_status	No	"no", "yes"
Residency Status	residency	in_state	"in_state", "out_of_state", "international", "citizen", "national", "permanent_resident", "refugee", "other_residency"
Judicial Status	judicial_status	clear	
Country Code	phone_country_code	1	
Phone Number	phone_number	313-518-9106	
Year In School	year_in_school	sophomore	"Freshman", "Sophomore", "Junior", "Senior", "Graduate Student", "Non-degree Seeking"
Traveler Type	traveler_type	undergraduate	"undergraduate", "graduate", "other", "high_school", "post_graduate", "faculty", "staff", "guest"
College or Faculty	places_of_study	School of Business	
Home Campus	school_name	University of Awesome	
Anticipated Graduation Year	grad_year	2022	YYYY
GPA - Cumulative	cumulative_gpa	3.812	
GPA - Major	major_gpa	3.987	

Hours Earned	hours_earned	64	
Major - Primary	primary_major	Economics	
Major - Secondary	secondary_major	Spanish	
Minor - Primary	primary_minor	Entrepreneurship	
Minor - Secondary	secondary_minor	Sociology	
Minor - Third	third_minor	Sign Language	
Current Address: Address	current_address_line_1	1234 Main Street	
Current Address: Address Line 2	current_address_line_2	Apt 4	
Current Address: City	current_address_city	Townie	
Current Address: State/Province/Territory	current_address_state	Indiana	
Current Address: Zip Code	current_address_zip_code	41621	
Current Address: Country	current_address_country	US	Alpha2 Code
Permanent Address: Address	permanent_address_line_1	910 Linwood Place	
Permanent Address: Address Line 2	permanent_address_line_2		
Permanent Address: City	permanent_address_city	Mansfield	
Permanent Address: State/Province/Territory	permanent_address_state	OH	
Permanent Address: Zip Code	permanent_address_zip_code	23168	

Permanent Address: Country	permanent_address_country	US	Alpha2 Code
Emergency Contact/Primary Emergency Contact: First Name	emergency_contact_first_name	Jane	
Emergency Contact/Primary Emergency Contact: Last Name	emergency_contact_last_name	Smith	
Emergency Contact/Primary Emergency Contact: Relationship	emergency_contact_relationship	Mother	
Emergency Contact/Primary Emergency Contact: Email	emergency_contact_email	mom@example.com	
Emergency Contact/Primary Emergency Contact: Phone Number	emergency_contact_phone_country_code	1	
Emergency Contact/Primary Emergency Contact: Phone Number	emergency_contact_phone_number	314-528-9172	
Emergency Contact/Primary Emergency Contact: Address	emergency_contact_address_line_1	910 Linwood Place	
Emergency Contact/Primary Emergency Contact: Address Line 2	emergency_contact_address_line_2		

Emergency Contact/Primary Emergency Contact: Address City	emergency_contact_address _city	Mansfield	
Emergency Contact/Primary Emergency Contact: Address State/Province/Terri tory	emergency_contact_address _state	OH	
Emergency Contact/Primary Emergency Contact: Address Zip Code	emergency_contact_address _zip	23168	
Emergency Contact/Primary Emergency Contact: Address Country	emergency_contact_address _country	US	Alpha2 Code
Emergency Contact/Secondary Emergency Contact: First Name	secondary_emergency_cont act_first_name	Bob	
Emergency Contact/Secondary Emergency Contact: Last Name	secondary_emergency_cont act_last_name	Smith	
Emergency Contact/Secondary Emergency Contact: Relationship	secondary_emergency_cont act_relationship	Father	
Emergency Contact/Secondary Emergency Contact: Email	secondary_emergency_cont act_email	dad@example.com	
Emergency	secondary_emergency_cont	1	

Contact/Secondary Emergency Contact: Phone Number	act_phone_country_code		
Emergency Contact/Secondary Emergency Contact: Phone Number	secondary_emergency_contact_phone_number	314-717-1161	
Emergency Contact/Secondary Emergency Contact: Address	secondary_emergency_contact_address_line_1	910 Linwood Place	
Emergency Contact/Secondary Emergency Contact: Address Line 2	secondary_emergency_contact_address_line_2		
Emergency Contact/Secondary Emergency Contact: Address City	secondary_emergency_contact_address_city	Mansfield	
Emergency Contact/Secondary Emergency Contact: Address State/Province/Territory	secondary_emergency_contact_address_state	OH	
Emergency Contact/Secondary Emergency Contact: Address Zip Code	secondary_emergency_contact_address_zip_code	23168	
Emergency Contact/Secondary Emergency Contact: Address Country	secondary_emergency_contact_address_country	US	Alpha2 Code