



eLead Integration

SAGE & HUBSPOT (PHASE 1 – COMPANIES)

REVIEWERS (V1.1)

Name	Role
Tim Munro	Author
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Document Purpose

This document contains details of the eLead integration between Sage CRM and HubSpot. It is intended to be read by business users and technical staff that are support the integration.

KEY SYSTEMS AND CONTACTS

Customer: eLead Ashley.Jernigan@eleadcrm.com

Sage FTP: Jeff Tweardy jtweardy@cat-consult.com

IntegrateHQ: Trujay support@trujay.com

INTEGRATION COMPONENTS

The integration has the following key components:

- IntegrateHQ middleware connect the systems
- Sage CRM holds Company, Contact and Contract data and is the system of record for much of this data
- Data from Sage CRM is made available to the integration by exporting the data onto an FTP site as CSV's (this export, based on DB Views exported to CSV was created/managed by others and not detailed here)
- HubSpot CRM holds Company, Contact and Deal data

In the phase 1 integration Company data is replicated from Sage CRM to HubSpot.

SYSTEM DETAILS

SFTP:

- Site: [valftp.eleadcrm.com](ftp://valftp.eleadcrm.com)
- User: [svc_sage_hubspot](#)

HubSpot:

- email: integration.elead@trujay.com

IntegrateHQ:

- Account owner email: integration.lead@trujay.com

Credentials are securely stored in an encrypted vault with access restricted as-per Trujay Group PS standard operating practices.

SAGE CRM COMPANY DATA TO HUBSPOT

Data flow

- Data is exported from Sage as a series of CSV's and documents onto the SFTP site and available for processing at 8 PM EST. Specifically:
 - 2018-05-15_Companies.csv: Date filename prefix is dynamic. One row for each Sage company record that has been modified since last export. All field data should overwrite corresponding HubSpot property values
 - Only process rows with a value in "HubSpot ID" column. This is the HubSpot Id of the corresponding HubSpot Company record. eLead manually populates this column within Sage CRM.
 - 2018-05-15_Notes.csv: Date filename prefix is dynamic. One row for each new Sage company note that has been modified since last export
 - Only process rows with a value in "HubspotID" column. Each note should be added to HubSpot and associated to it's corresponding HubSpot Company record
 - 2018-05-15_Documents.csv: Date filename prefix is dynamic. One row for each new Sage company document that has been modified since last export
 - Only process rows with a value in "Hubspot ID" column. Each document should be saved to HubSpot, and a note should be created for each one and associated to the corresponding HubSpot Company record and to the document
 - Field "File" in this csv provides details re- the filename of the file on the SFTP server
 - Document Files: each row in 2018-05-15_Documents.csv will have a file on the SFTP site in the sub-directory named documents
- Integration is scheduled to run at 1:00 AM UTC every day (it looks like the files arrive on the FTP site daily at about 12:30 am UTC). It will:
 - Find all the {date}_Companies.csv, {date}_Notes.csv and {date}_Documents.csv files on the SFTP site. If no files are not found it will abort and send an error email
 - Loop through all rows in {date}_Companies.csv files and if the field "HubSpot ID" is not "NULL"
 - Update the corresponding HubSpot record with all fields from the row as per the mapping document

- Loop through all rows in {date}_Notes.csv and if the field “HubSpot ID” is not “NULL”:
 - Check if the note has been saved to HubSpot previously (see section on “Avoiding duplicate HubSpot Note Creation”), if not
 - Create the note in HubSpot, associating it to the Company, and
 - Record the fact that the note was created (ref to “Avoiding duplicate HubSpot Note Creation”)
- Loop through all rows in {date}_Documents.csv and, if the field “HubSpot ID” is not “NULL”:
 - Check if the document has been saved to HubSpot previously (see section on “Avoiding duplicate HubSpot Note Creation”), if not
 - Create a file in the HubSpot file manager, capturing the id of the new file, and
 - Create the note in HubSpot, associating it to the Company and to the uploaded file
 - Record the fact that the note was created (ref to “Avoiding duplicate HubSpot Note Creation”)
- Once each csv file is processed it is archived (copied into /archive/ subdirectory on the SFTP site)
- After the integration completes it will proceed delete files created more than 60 days prior from the following folders. It does this to avoid uncontrolled growth of data on the SFTP site:
 - /users/svc_Sage_Hubspot/notekeys/
 - /users/svc_Sage_Hubspot/archive/

Noteworthy Design Decisions

- It is believed that it will be uncommon for a single note or document to be updated multiple times in Sage. So, it is not expected that the same note will appear in the Notes.csv /Documents.csv exports more than once. Consequently, in the interest of simplicity, in cases where a Sage note is changed (and so exported multiple times) the integration will:
 - create a new (second) copy of the note in HubSpot was taken with the new note holding the updated information, and
 - leave the existing copy/copies of the notes “as-is” in HubSpot

Field Mappings – Sage Companies to Companies.csv to HubSpot

Sage Name	CSV Name/Col Index	HubSpot ID
Type	Type (B)	type
Install Date	Install Date (E)	install_date
Current DMS	Current DMS (F)	current_dms
Status	Status (G)	sage_company_status
Performance	Call Pro Performance (M)	performance_contact

Client Service	Client Services (O)	client_services_contact
Golddigger Sales	Golddigger Sales (Q)	golddigger_sales_contact
Auto Pilot	Autopilot (T)	auto_pilot_contact
Service1 Performance	Serv 1 Performance Contact (V)	service_1_performance_contact
Service1 Trainer	Serv 1 trainer (X)	service1_trainer_contact
Trainer	Trainer (Z)	trainer_contact
Call Pro Performance	Call Pro Perf (AB)	call_pro_performance_contact
Business Phone	Phone Number (H)	phone
Business Phone 2	-- not needed --	business_phone2
Hubspot Company ID	HubSpot ID (I)	(company id)
Active flag	Active (C)	sage_active (Sage Active)
Sage ID	Sage Company ID (A)	sage_company_id

Field Mappings – Notes.csv to HubSpot

CSV Expression (index)	HubSpot ID
Activity Date (B)	timestamp
HubspotID (H)	(company id)
Type (D): Subject (A) Details (C)	body

Field Mappings – Documents.csv to HubSpot

CSV Expression (index)	HubSpot ID
Updated Date (E)	timestamp
Hubspot ID (D)	(company id)
Type (F): File (G)	body
File (G)	attachment_ids

Test Plan

- No CSV files on server at time of execution
 - sends error email [x]
- All CSV files empty
 - runs OK [x]
 - sends summary email [x]
- Only Companies.csv
 - runs OK [x]
 - sends summary email [x]
 - all HubSpot fields updated [x]
- Only Notes.csv
 - runs OK [x]

- sends summary email [x]
- note added to HubSpot [x]
- note timestamp correct [x]
- Only Documents.csv
 - runs OK [x]
 - sends summary email [x]
 - note and file added to HubSpot [x]
- Run same Notes.csv file multiple times
 - no dup notes created in HubSpot [x]
 - sends summary email [x]
- Run same Documents.csv rows multiple times
 - no dup notes created in HubSpot [x]
 - sends summary email [x]

AVOIDING DUPLICATE HUBSPOT NOTE CREATION

With an integration it is common that a data set needs to be replayed e.g. if the integration fails part way through. Unfortunately HubSpot's API makes it difficult to efficiently determine whether a note has been previously created against a particular Company (e.g. cannot do a filtered search by Company ID, note timestamp and ...). So –to avoid creating duplicate notes the integration works as follows:

- After successfully saving any note to HubSpot it creates a blank “note key” file on the SFTP site, in the /notekeys/ sub folder, with a deterministic filename that is “unique to the note”. The filename is a concatenation of a few key note attributes, specifically:
 - For notes: sage company id, note id, note date and a hash of the note contents
 - For documents: sage company id, document id and document date
- Before saving any note to HubSpot we first check the SFTP site for the presence of a file that has the note's deterministic “note key”. If it is found we do not add the note to HubSpot again
- **Warning:** to avoid filling the drive on the SFTP site (or causing performance issues due to large numbers of files) these files are auto deleted after 60 days. ***So – if you replay the migration of notes or documents that are more than 60 days old you will create duplicate notes/documents in HubSpot***