Data pipe proposal

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principles for a data pipeline

- **modular**: each component should be maintained and developed independently
- **monitored**: we know what breaks and why
- **historical consistency**: ability to perform consistent analytics on past data
- **quality assurance**: we know when a KPI deteriorates and which days to exclude from analytics
- **alerts**: we get promptly informed when something goes wrong
- **control panel**: on the jobs running, ability to re-run and re-schedule
- **analytics platform**: parse and display the relevant metrics
- **privacy layer**: compliance and safe analytics

where do we stand?

- **code**: monolithic like code, no object oriented, one main contributor left, documentation missing
- **ops**: we have few dockers, no orchestration
- **repo**: the repository contains operations, monitoring, storage management, reporting... few libraries
- **storage**: we have a postgres, sqlite files, tool's own database (sent emails)
- **data amount**: we are still not handling big data, good chance for redundancy

existing data sources

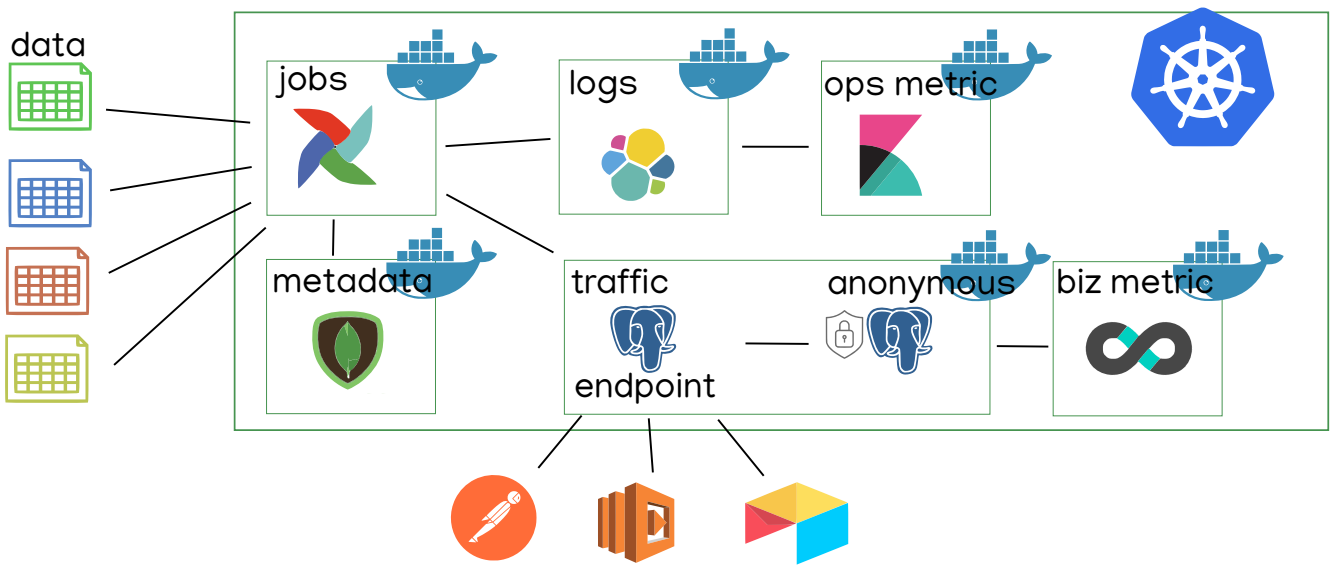
Documented in notion

- **postgres**: email traffic and some metrics
- **SQLite**:
  - *bounces* bounced email addresses
  - *l3m* table to populate the main UI
  - *logtracker* populates the control center
- **sent emails**: roundcube email server
- **CRM**: pipedrive to connect
- **spreadsheets**: different business critical spreadsheets not connected

requirements

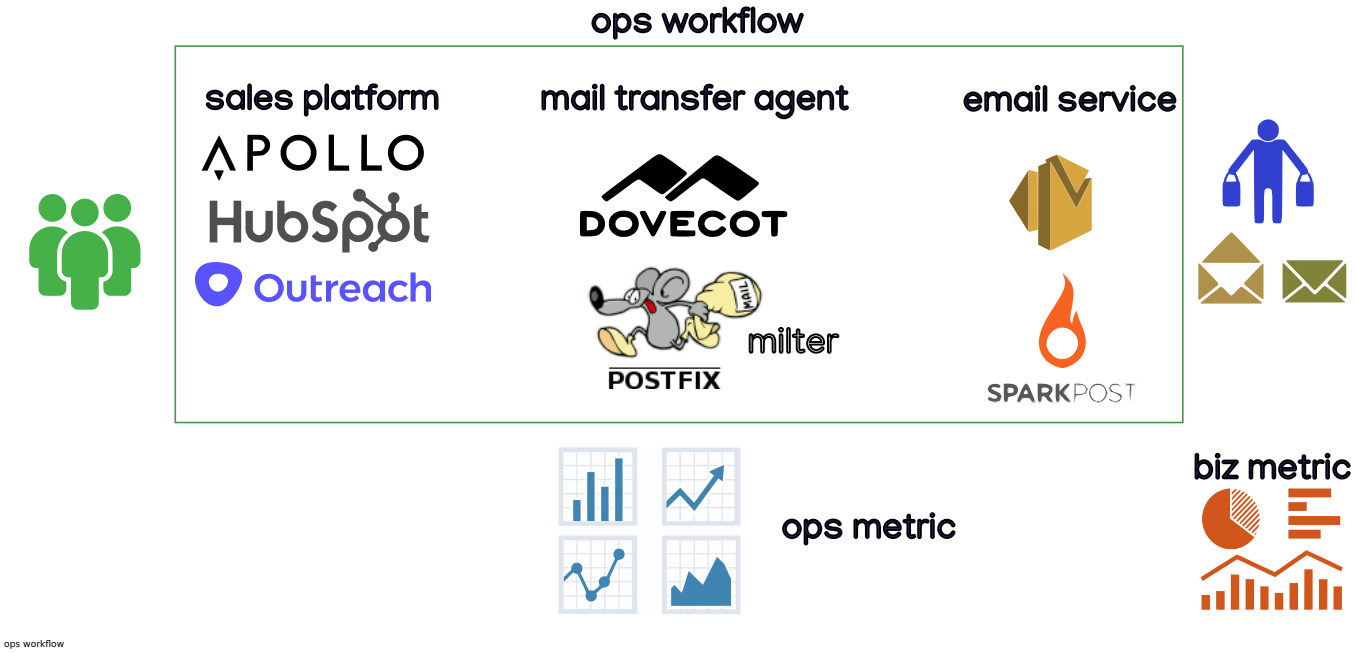
- **integrate external platforms**: easy way to include external platforms in the loop
- **warming metrics**: store and display warming metrics per client
- **operational monitoring**: logtrace to extend
- **delivery funnel**: complains and spam are missing
- **spreadsheets**: link the existing spreadsheets to databases -> airtable
- **centralized db**: store most of the information in a central place
- **visualization**: internal (external?) dashboard
- **l3m**: migration of the UI

design



data pipeline

operation workflow/funnel



ops workflow

preliminaries

- **data modeling**: how do we structure the data considering futuristic changes, what should stay relational
- **metadata**: which information we need to store
- **naming convention**: I would avoid `rcpt` as `recipient`, `topmx`... which we struggle to understand.
- **entity relationship**: Decide the `id` naming and how we join tables
- **access control list**: which access group should we create and what permissions do we need to grant (security, stability, traceability)
- **entity relationship management**: which IDs will connect all the tables, what we identify as unity (clients, campaigns, platform, transport...)
- **operational metrics**: what are the fundamental metrics to consider
- **business metrics**: what are the business goals to monitor

road-map

- **cluster**: build the cluster, prepare the containers and link them
- **central db**: set up a central db (digital ocean?) and create an API
- **platform integration**: ad-hoc ETL, lambda, postman
- **replace routines**: decouple from the monolith to single services
- **refining requirements**: metrics, data structure, touchpoints
- **API building**: document with swagger