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Effortless A.I. Powered Customer Feedback Analytics

Solution Documentation

Opinyin Freshdesk Enterprise Reporting Solution

for

Microsoft Power BI

Date: 07/10/2022
Author: Rob Lancashire
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E. & O.E.
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Overview

The Opinyin Freshdesk Enterprise Reporting solution is the first of its kind package of components designed to extract large amounts of data from the Opinyin and Freshdesk systems as it is created or updated and, using Microsoft Power Automate workflow processes, aggregate this data in a Microsoft DataVerse data lake so that it may be dynamically queried by reporting tools, particularly Microsoft Power BI.

It uses the Opinyin and Freshdesk RESTful APIs and Opinyin/Freshdesk Webhooks to securely synchronise data into the data lake on an as-required and event-driven basis, respectively.

The schema in the data lake presents a flexible and extensive basis for reporting and root cause analysis of customer experience, as well as the potential to further expand this analysis with quantitative data from other systems such as CRM and Finance.

Opinyin has data analysts who can assist you with this process and ensure that you maximise the value of the data your processes collect to inform and drive customer experience excellence and subsequently business growth.

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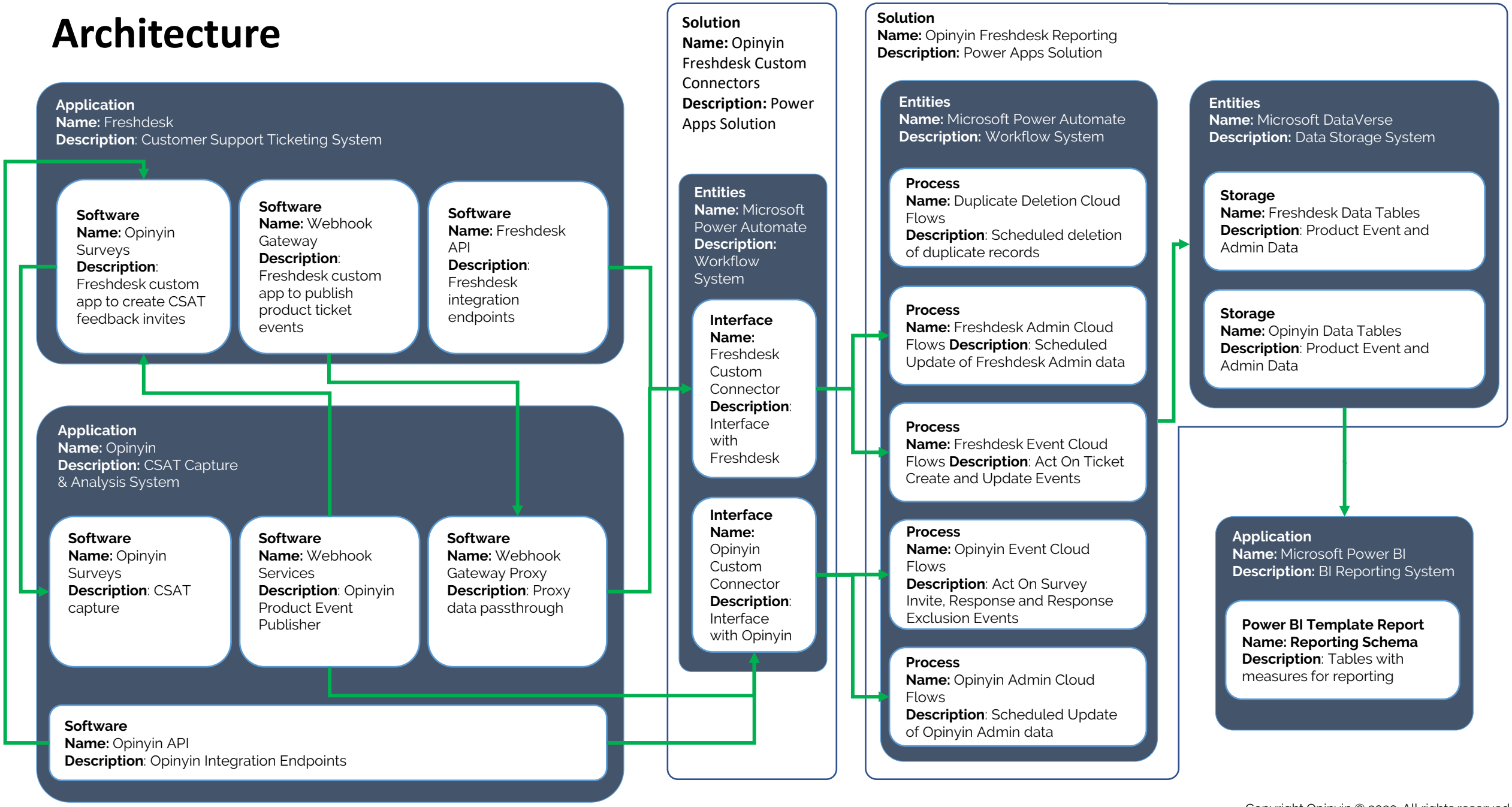
Architecture



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Configuration

Opinyin Surveys

- Custom Freshdesk App
- Dependencies:
  - Freshdesk Admin Level API Key
  - Opinyin API Key

Opinyin Webhook Gateway

- Custom Freshdesk App
- Dependencies:
  - Freshdesk Admin Level API Key
  - Opinyin API Key

Power Apps Environment

- Dependencies
  - Team created from AAD Reporting Users Group with Service Reader security role
  - Team created from ADD Admin Users Group with system Administrator Security Role

Power Apps Custom Connector Solution

- Custom connectors required by Reporting Solution
- Must be installed before Reporting Solution
- Script.csx file must be installed in Opinyin connector manually and assigned to only the Opinyin_webhook_trigger

Power Apps Reporting Solution

- Cloud flows in Powers Apps Solution
- Dependencies:
  - Flow Owner set to non expiring user account
  - Freshdesk Connection
    - Freshdesk Domain Details
    - Freshdesk Admin Level API Key
    - Opinyin API Key
    - Webhook subscriber URL from Webhook Custom App in Freshdesk
  - Opinyin Connection
    - Opinyin API Key
  - DataVerse Connection
    - MS user account with administrator permissions
  - Email Connection
    - MS user account with mailbox

Power BI

- Optional template .pbix file with pre-built reporting schema set to Dynamic Querying.
- Dependencies:
  - User to be in reporting group (see above)

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Process Considerations

Initial Installation

- This requires the one off export of all existing tickets in Freshdesk as both XML and CSV formats followed by transformation of the data using a nodeJS script for export into the Opinyin Power Apps Reporting DataVerse tables using a Power Apps Batch Import job.
- The export of existing Opinyin data is a one off export and data transformation using a web app that connects to the Opinyin API and the Reporting Power App Solution DataVerse.

Freshdesk Product Event Triggers

- Ticket Update Events in Freshdesk are only triggered by changes to the following fields. Therefore, records will only synchronise with the reporting database when these events occur.
  - The status, priority, type, or source of the ticket is modified.
  - The agent or group associated with the ticket is modified.
  - The ticket is marked as spam.
  - The ticket is escalated for any reason

Duplicate Records

- The speed at which subsequent Freshdesk product events can occur means that the Power Automate flows can not effectively prevent creating duplicates all the time.
- Scheduled flows are included that check for and remove duplicates at 0:00 UTC each day.

Security/Data Protection

- All communications between Freshdesk/Opinyin and Power Automate are via HTTPS encrypted links.
- No Personally Identifiable from Freshdesk is stored in Opinyin.
- The Opinyin Webhook Proxy is a required component in order to meet Freshworks domain whitelisting requirements. It does not process or store any data it routes other the temporarily in volatile memory during routing.

Reporting

- The unpreventable creation of duplicates means that reporting data for the current day may include duplicate records.
- All admin data from Freshdesk and Opinyin is synchronised on a scheduled basis at 03:00 UTC each day.
- A base schema is a available for the DataVerse Tables indicating referential links. Appendix 1
- A reference schema is available for the Power BI reporting template .pbix file indicating referential links. Appendix 2.

Data Storage

- The Power Apps Environment should have enough storage resources to handle storage requirements for the next 12 months to avoid issues with the synchronisation of data. It is impossible to give accurate predictions of data growth requirements as it is a function of the number of tickets handled but Opinyin can give a bespoke estimate of this.

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Thank You

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Appendix 1

Opinyin/Freshdesk Reporting DataVerse Base Schema
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v0.1
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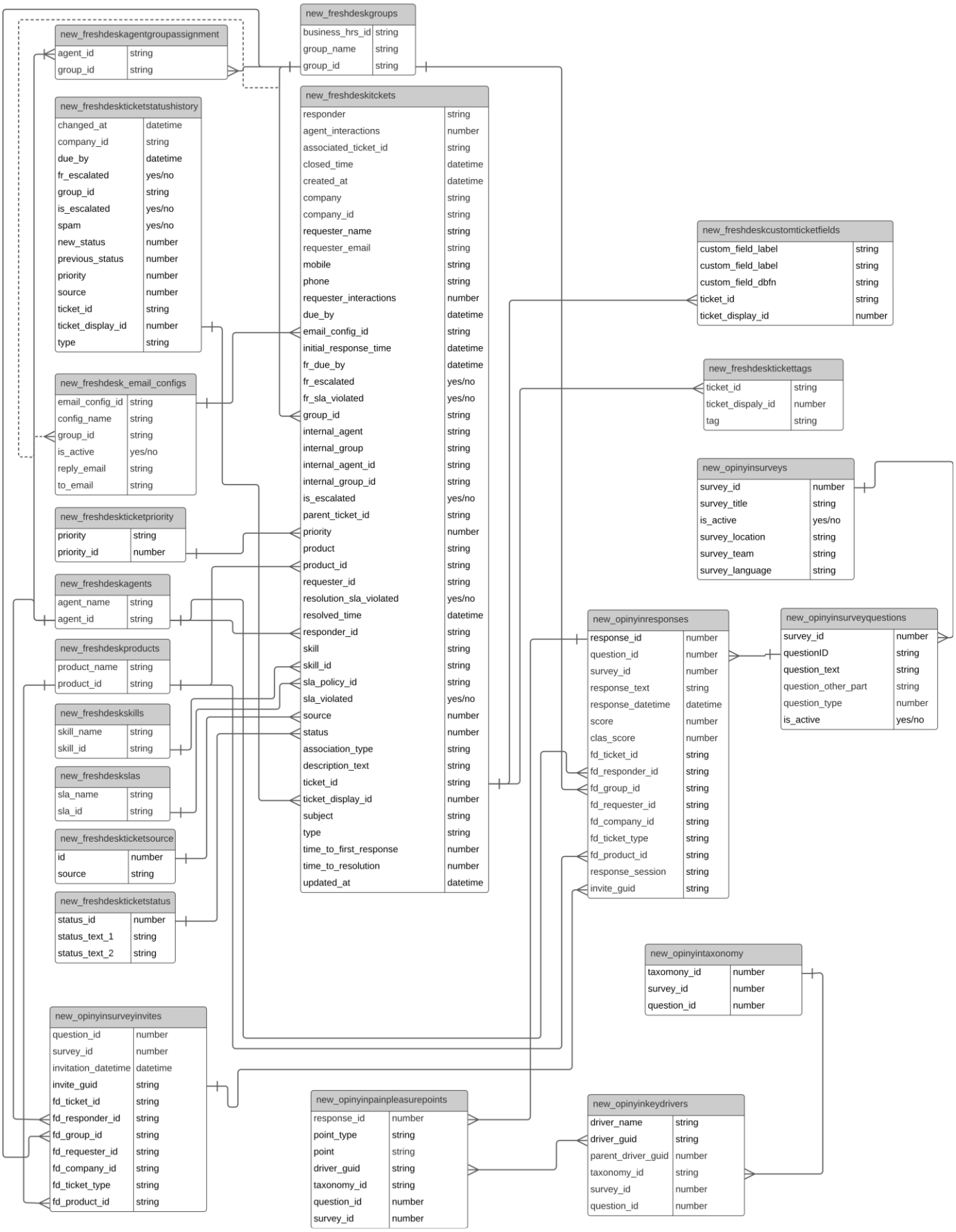
***Notes**:*
(1) This schema only includes details of relevant data fields, and not default Dataverse fields.
(2) fd_ticket_id in Opinyin tables relates to ticket_display_id in Freshdesk tables



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Appendix 2

Opinyin/Freshdesk Power BI Reporting Schema
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v0.4
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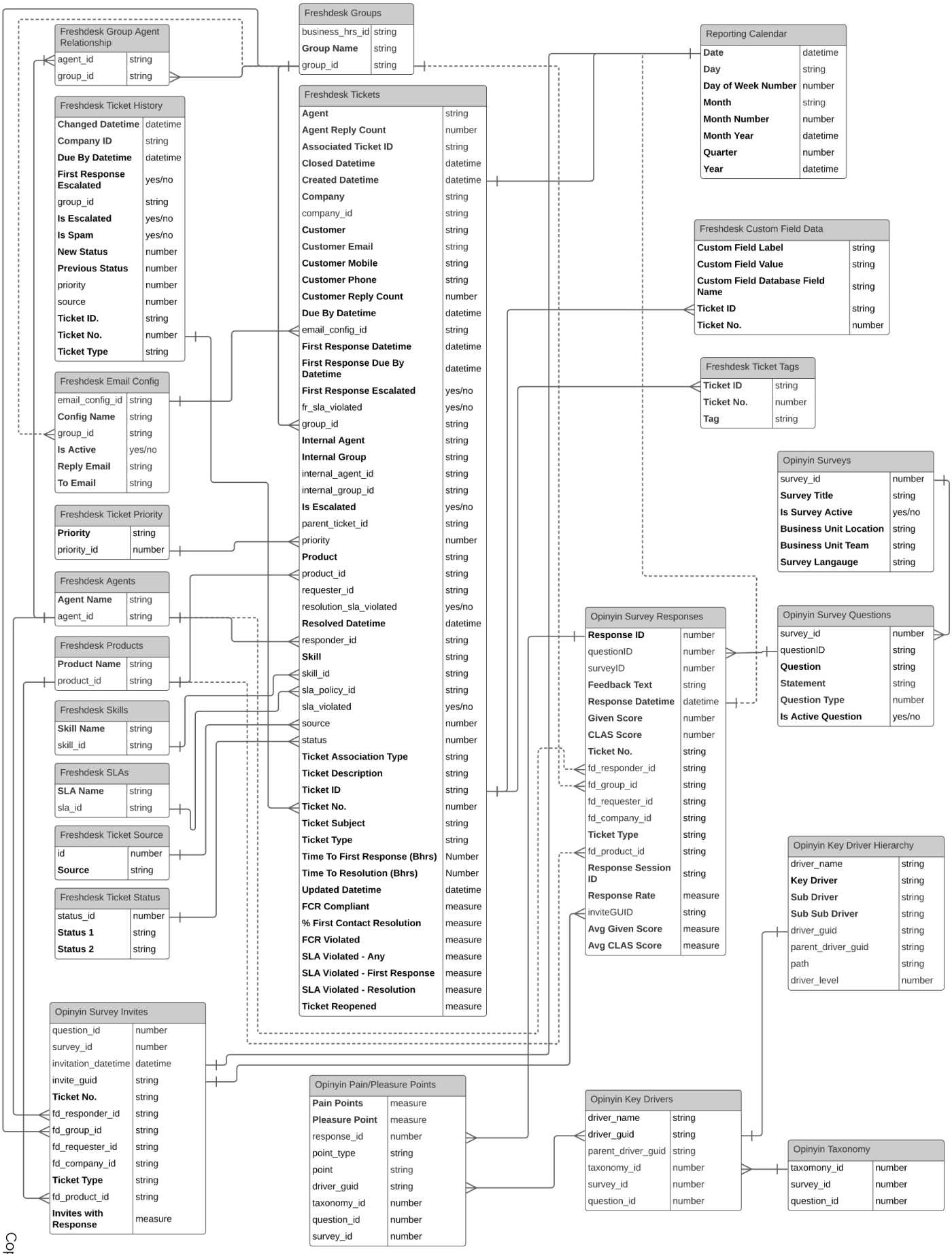
Key
Active Relationships
Inactive Relationships (usable with DAX userelationship function)
BOLD Visible reporting fields in model
Not Bold Hidden reporting fields in model



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