ThemeGPT ADWS

Google Ads API Integration — Design Documentation

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1. Overview

ThemeGPT is a privacy-first Chrome extension that lets users customize the ChatGPT interface. The **ADWS (Advertising Watch System)** is an internal Python command-line tool built by EthereaLogic to monitor and report on ThemeGPT's own Google Ads campaign performance.

ADWS is a **read-only reporting tool**. It queries the Google Ads API to pull campaign metrics, aggregates them alongside GA4, Microsoft Clarity, and Chrome Web Store analytics, and renders a daily Markdown/HTML report for internal review. It does not create, modify, or delete any Google Ads resources.

2. Scope and Access

Field	Value
Manager account (MCC)	Themegpt — 799-632-8615
Advertising account	ThemeGPT — 170-289-9815
API access type	Read-only (no writes, no mutations)
Users	Internal — EthereaLogic engineering team only
Deployment	Local developer machine (CLI)
Data sensitivity	Own campaign data only — no third-party account data

3. Architecture

ADWS is a single Python package (*adw_modules*) invoked via *scripts/metrics_report.py*. It collects data from six sources in parallel and writes a daily report to disk.

3.1 Component Diagram
The following describes the data flow at a high level:

Component	Role
`scripts/metrics_report.py`	CLI entry point; orchestrates parallel collection
`adw_modules/metrics_collectors.py`	One async collector per data source
`collect_google_ads()`	Authenticates and queries the Google Ads API

`adw_modules/report_generator.py`	Renders Markdown + HTML from collected data
`~/.config/google-ads.yaml`	OAuth2 credentials (local machine only, not committed)

3.2 Technology Stack

Language: Python 3.12 | Package manager: uv | Google Ads client: google-ads 25.x | Auth: google-auth-oauthlib (OAuth 2.0 installed flow)

4. Google Ads API Usage

4.1 API Version and Service

ADWS targets **Google Ads API v23** via the official *google-ads* Python client library. The only service used is **GoogleAdsService.SearchStream**, which executes GAQL (Google Ads Query Language) queries against the advertiser's own account.

4.2 GAQL Query

The tool executes a single read-only GAQL query per report run:

```
SELECT campaign.id, campaign.name, campaign.status,
  metrics.clicks, metrics.impressions, metrics.ctr,
  metrics.average_cpc, metrics.cost_micros,
  metrics.conversions, metrics.all_conversions
FROM campaign
WHERE segments.date DURING YESTERDAY
  AND campaign.status = 'ENABLED'
```

No mutations (create, update, remove) are ever issued. The tool is stateless — it reads, aggregates, and exits.

4.3 Authentication Flow

Authentication uses the **OAuth 2.0 installed application flow** (InstalledAppFlow). Credentials are stored in *~/.config/google-ads.yaml* on the developer's local machine and are never committed to version control, transmitted to a server, or shared outside the internal team.

Step	Description
1	Developer runs one-time OAuth flow to obtain a refresh token
2	Refresh token stored in ~/.config/google-ads.yaml (local only)
3	At report time, client library exchanges refresh token for access token
4	Access token used for a single SearchStream RPC call
5	Token expires; next run refreshes automatically

5. Data Handling and Privacy

ADWS accesses exclusively **ThemeGPT's own advertising data**. No external advertiser, client, or third-party account data is ever accessed. The tool operates under the following constraints:

• Data is written only to local Markdown/HTML files in the project's doc/dev/ directory.

• No campaign data is transmitted to any external service or stored in a database.

• No personally identifiable information (PII) is collected or processed.

• Credentials are stored only on the developer's local machine and never in version control.

• The tool has no web-facing endpoints, no server component, and no third-party data sharing.

6. Access Control

Access to the tool and its credentials is restricted to the EthereaLogic engineering team (internal users only). There is no end-user-facing interface. The tool is invoked manually by a developer via CLI and is not deployed to any production server or automated pipeline.

7. API Call Summary

Attribute	Value
Service	GoogleAdsService
Method	SearchStream
Frequency	On-demand (manually triggered, typically once per day)
Estimated daily call volume	1–3 calls per day
Write operations	None
Resources accessed	campaign, metrics (read-only)
Accounts queried	Own account only (170-289-9815 via MCC 799-632-8615)