Google Ads API Integration Design Document

Application Name: ArcVest Marketing Dashboard
Company: ArcVest Wealth Management
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1. Executive Summary

ArcVest Wealth Management is a fee-only fiduciary Registered Investment Advisor (RIA) that provides comprehensive wealth management services. The ArcVest Marketing Dashboard is an internal tool designed to help our marketing team monitor and analyze the performance of our Google Ads campaigns alongside other marketing metrics.

This document describes the technical design and intended use of our Google Ads API integration.

2. Company Information

Field	Value
Company Name	ArcVest Wealth Management
Website	https://arcvest.com
Industry	Financial Services / Wealth Management
Google Ads Customer ID	911-003-7605

Primary Contact:

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ArcVest Wealth Management

3. Application Overview

3.1 Purpose

The ArcVest Marketing Dashboard is a private, internal-only web application that consolidates marketing analytics from multiple sources into a single unified dashboard. The application is used exclusively by ArcVest employees to:

- Monitor Google Ads campaign performance
- Track website traffic via Google Analytics
- Manage leads and client pipeline
- Analyze marketing ROI and cost-per-acquisition

3.2 Users

This application is **not** a third-party tool or service offered to external customers. It is used exclusively by:

- ArcVest marketing team members (2-3 users)
- ArcVest leadership for performance reviews

3.3 Access Control

- The application requires authenticated login
- Only authorized ArcVest employees can access the dashboard
- No external parties have access to the application or data

4. Google Ads API Usage

4.1 API Features Used

Our application uses the Google Ads API (v18) with **read-only** access to retrieve campaign performance data. We use the following API features:

Feature	Purpose
GoogleAdsService.SearchStream	Query campaign metrics
Campaign resource	Retrieve campaign names and status
Metrics resource	Retrieve impressions, clicks, cost, conversions
Segments resource	Retrieve date-based breakdowns

4.2 Data Retrieved

We retrieve the following data from our own Google Ads account only:

- **Campaign Information:** Campaign ID, name, status
- **Performance Metrics:** Impressions, clicks, cost, conversions
- **Calculated Metrics:** CTR, CPC, CPA
- **Time Segments:** Daily performance data for trend analysis

4.3 API Query Examples

```
-- Campaign Performance Query
SELECT
  campaign.id,
  campaign.name,
  campaign.status,
  metrics.impressions,
  metrics.clicks,
  metrics.cost_micros,
  metrics.conversions,
  metrics.ctr,
  metrics.average_cpc
FROM campaign
WHERE segments.date BETWEEN '2026-01-01' AND '2026-01-12'
  AND campaign.status != 'REMOVED'
```

```
-- Account Summary Query
SELECT
  metrics.impressions,
  metrics.clicks,
  metrics.cost_micros,
  metrics.conversions
FROM customer
WHERE segments.date BETWEEN '2026-01-01' AND '2026-01-12'
```
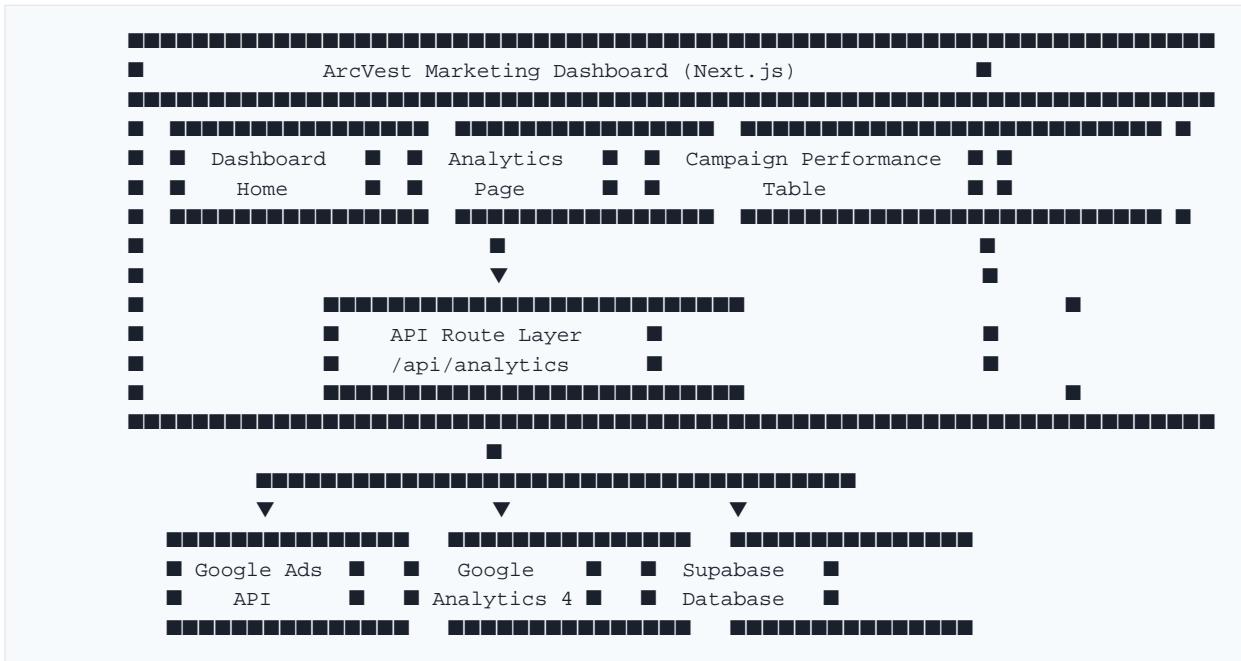
4.4 API Call Frequency

- **Dashboard Load:** 3 API calls per page load
- **Expected Usage:** 50-100 API calls per day
- **Caching:** Access tokens cached for 55 minutes to minimize OAuth requests

5. Technical Architecture

5.1 System Architecture

```
┌─────────────────────────────────────────────────────────────┐
│              ArcVest Marketing Dashboard (Next.js)           │
├─────────────────────────────────────────────────────────────┤
│  ┌──────────────┐  ┌──────────────┐  ┌─────────────────────┐ │
│  │  Dashboard   │  │  Analytics   │  │ Campaign Performance│ │
│  │    Home      │  │    Page      │  │       Table         │ │
│  └──────────────┘  └──────────────┘  └─────────────────────┘ │
│         │                 │                     │            │
│         │                 ▼                     │            │
│         │      ┌──────────────────────┐         │            │
│         │      │    API Route Layer    │        │            │
│         │      │    /api/analytics     │        │            │
│         │      └──────────────────────┘         │            │
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                 │
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        ▼                ▼            ▼
  ┌──────────────┐ ┌──────────────┐ ┌──────────────┐
  │  Google Ads  │ │   Google     │ │   Supabase   │
  │     API      │ │ Analytics 4  │ │   Database   │
  └──────────────┘ └──────────────┘ └──────────────┘
```

5.2 Technology Stack

Component	Technology
Frontend	Next.js 15, React 19, TypeScript
Backend	Next.js API Routes (serverless)
Database	Supabase (PostgreSQL)
Hosting	Vercel
Authentication	Supabase Auth

5.3 Google Ads API Client

Our API client implementation:

- Uses OAuth 2.0 with refresh tokens for authentication
- Implements token caching to minimize OAuth requests
- Uses the REST API via googleads.googleapis.com

- All requests include proper developer token headers

6. Data Handling & Security

6.1 Data Storage

- Google Ads data is **not stored** in our database
- Data is fetched in real-time on each dashboard load
- No Google Ads data is cached beyond the current session

6.2 Credential Security

Credential	Storage Location
Developer Token	Vercel Environment Variables (encrypted)
OAuth Client ID	Vercel Environment Variables (encrypted)
OAuth Client Secret	Vercel Environment Variables (encrypted)
Refresh Token	Vercel Environment Variables (encrypted)

6.3 Access Control

- Application requires authenticated login
- Only ArcVest employees have credentials
- No public access to API endpoints
- All API routes verify authentication before processing

6.4 Data Privacy

- We only access our own Google Ads account (Customer ID: 911-003-7605)
- No third-party data is accessed
- No data is shared with external parties
- Compliant with financial services data handling requirements

7. User Interface

7.1 Analytics Dashboard

The analytics dashboard displays Google Ads data in the following sections:

Overview Metrics Cards:

- Total Ad Spend
- Cost per Lead
- Total Conversions
- Conversion Rate

Secondary Metrics:

- Impressions
- Clicks
- Click-Through Rate (CTR)
- Cost per Click (CPC)

Performance Charts:

- Daily spend and conversions over time (line/area chart)
- Visual trend analysis for selected date range

Campaign Performance Table:

Column	Description
Campaign	Campaign name
Status	Active/Paused/Ended
Impressions	Total impressions
Clicks	Total clicks
CTR	Click-through rate
Spend	Total cost
CPC	Average cost per click
Conversions	Total conversions
CPA	Cost per acquisition

7.2 Date Range Selection

Users can view data for:

- Last 7 days
- Last 30 days
- Last 90 days
- Last 365 days

8. Compliance

8.1 Google Ads API Terms

Our application complies with Google Ads API Terms of Service:

- **Single Account Access:** We only access our own Google Ads account
- **No Resale:** We do not resell or provide API access to third parties
- **Read-Only:** We only read data; we do not modify campaigns via API
- **Rate Limits:** Our usage is well within standard rate limits
- **Data Handling:** We follow Google's data handling requirements

8.2 Financial Services Compliance

As a Registered Investment Advisor, ArcVest maintains:

- SOC 2 compliant hosting (Vercel)
- Encrypted data transmission (HTTPS/TLS)
- Access logging and audit trails
- Employee-only access to marketing data

9. Support & Maintenance

9.1 Development Team

The application is developed and maintained by the ArcVest technology team with assistance from contracted developers.

9.2 Error Handling

- API errors are logged for debugging
- Users see friendly error messages
- Automatic fallback to cached/database data if API unavailable

9.3 Updates

- Application updates are deployed via CI/CD pipeline
- Google Ads API version updates are applied as needed
- Security patches are applied promptly

10. Conclusion

The ArcVest Marketing Dashboard is a straightforward internal analytics tool that uses the Google Ads API to display campaign performance data to our small marketing team. We use read-only API access to retrieve metrics from our single Google Ads account and display them alongside other marketing data in a unified dashboard.

We are requesting Basic Access to enable our production Google Ads account integration. Our usage is minimal (under 100 API calls/day) and strictly for internal business analytics purposes.

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