

Diray Media – Impact Engine MVP Product Brief

1. Purpose

Diray Media is building an MVP version of the Impact Engine, a unified scoring and attribution system that connects media performance across Linear TV, Streaming/CTV, YouTube, and Retargeting to real business outcomes such as orders, revenue, leads, and site traffic.

This MVP converts Diray's internally developed vibe-coded prototypes into a production-ready framework with well-defined components, validated modeling, a modern analytics interface, and reliable daily processing.

The purpose of the Impact Engine MVP is to provide a single, interpretable view of how all media channels work together each day—helping teams understand what drove results, why it happened, and how to improve performance going forward.

The vendor will shape, validate, and formalize the modeling approach using real client-level data while maintaining interpretability and preparing the foundation for future optimization and creative intelligence features.

2. Summary of Existing Vibe-Coded Work

Conceptual Framework

Diray's exploratory prototype identifies independent signals of media quality such as audience alignment, network/platform strength, day-of-week patterns, and daypart performance. These components are normalized and combined into a single daily score (MIS).

Observed Behaviors

- Stable daypart effects
- Channel and network differences in performance
- Lagged response patterns (especially for Linear)
- Faster digital responses

Prototype Methodology

The current system uses correlations to identify meaningful components, determines component importance from data, normalizes scores for comparability, and distributes daily outcomes based on relative quality and media volume. Lag effects are included through simple multi-day weighting.

3. High-Level MIS Process (Current Prototype)

1. Ingest daily media inputs and clean invalid rows.

2. Compute component signals for each channel (e.g., daypart, network strength, platform performance, segment quality).
3. Normalize components to a comparable scale.
4. Learn component weights using correlation and regression.
5. Combine weighted components into daily MIS.
6. Apply scaling so MIS is intuitive and comparable.
7. Use MIS × volume for daily attribution.
8. Apply lag logic for multi-day influence.

4. MVP Requirements

Data Integration

- Vendor connects to Diray's AWS environment and unified Postgres DB.
- Diray provides schemas and documentation.

Daily Processing Pipeline

- Runs once daily
- Required missing data triggers skip
- Late-arriving data triggers automatic reprocessing

Channel Scoring (MIS)

Vendor must formalize MIS scoring for Linear, Streaming/CTV, YouTube, and Retargeting using:

- Interpretability
- Component independence
- Normalization
- Stable recalibration
- Client-specific learned weights

Attribution

Lag-aware attribution using channel-specific lag profiles and MIS-driven proportional contribution.

Recommendations

Scenario blocks and recommendation cards with simple predictive estimates. Generated daily and on-demand.

Anomaly Detection

Automatically detect unusual spikes/dips, flag anomalies clearly, and apply smoothing where appropriate.

Benchmarking

Internal benchmarking within Diray normalized for spend, campaign size, and outcome volume; displayed as percentiles.

5. Dashboard Requirements

Internal Dashboard

- High-end UI
- MIS trends
- Channel breakdowns
- Attribution
- Component explanations
- Benchmarking
- Anomaly indicators
- LLM insights
- PDF + CSV exports

Client View

A simplified premium UI with MIS overview, trends, basic attribution, LLM summary, and light recommendations.

6. Roles and Permissions

- Admin: configuration, retraining, backfills
- Analyst: full analytics
- Client: summary-only

7. Working Relationship

Vendor leads modeling rigor, architecture, workshops, and overall execution. Diray provides business context, data access, and iterative feedback. Target delivery: 60 days.

8. Future Direction After MVP

- Predictive budget optimization
- Multi-outcome modeling
- Cross-client benchmarking
- Federated learning
- Creative scoring expansion
- Real-time updates

9. Acceptance Criteria

- MIS scoring across all channels
- Lag-aware attribution functional
- Dashboard polished and operational
- LLM insights interactive
- Client view available

- Export tools working
- Daily automation and backfill operational
- Admin panel functional
- Benchmarking visible

10. Notes for Vendor

Diray's vibe-coded prototypes and white paper are conceptual guides. Vendor must validate ideas, enhance rigor, and deliver a scalable, interpretable production system.