P360 Display Advertising Platform - MVP Implementation Plan

Executive Summary

Project: Pipeline360 Display Advertising Platform MVP
Timeline: September 1, 2025 - January 19, 2026 (140 days)
Budget: $540,000 (fixed fee with $90K at risk)
Critical Deadline: January 9, 2026 (Production deployment)
Success Metric: First customer dollar processed by deadline

MVP Strategy: Phased Delivery Approach

Phase Strategy Overview

We recommend a **3-tier MVP approach** to ensure business continuity and manage risk:

1. **MVP-1 (Foundation)**: Core platform capabilities for business operations
2. **MVP-2 (Enhancement)**: Advanced features for competitive differentiation
3. **MVP-3 (Scale)**: Marketplace and optimization features

MVP-1: Foundation (Critical Path to Jan 9, 2026)

🎯 MVP-1 Objectives

- Replace Xandr functionality for business continuity
- Enable first customer dollar by January 9, 2026
- Establish core multi-tenant platform
- Implement essential integrations (TTD, Bombora, Salesforce)

📋 MVP-1 Feature Scope

1. Core Infrastructure (Must-Have)

✅ Tech Foundation

- ☐ Multi-tenant database architecture with org-level isolation
- ☐ Microsoft Entra ID SSO for internal users
- ☐ External user authentication (Auth0/OIDC)
- ☐ Role-based access control (Super Admin, Campaign Manager, Marketer)
- ☐ Data encryption (at rest/transit) and API security
- ☐ Basic system monitoring and health checks
- ☐ Sandbox/test mode for safe testing

2. User & Organization Management (Must-Have)

✅ **User Management**

- ☐ Organization creation (API + manual by Super Admin)
- ☐ User provisioning and role assignment
- ☐ TTD Advertiser API key management
- ☐ Basic audit logging for user actions
- ☐ Manual record reconciliation UI for unmapped SF records

3. Audience Management (Must-Have)

✅ **Core Audience Capabilities**

- ☐ CSV upload & ingestion (max 10K records, <30s processing)
- ☐ Audience builder with AND/OR logic trees
- ☐ Audience field-mapping service for Bombora data normalization
- ☐ Audience deduplication and validation
- ☐ TTD audience export with UID2 identifiers
- ☐ ICP audience type designation
- ☐ TTD seed creation from audiences (min 10K cookies)

4. Campaign Orchestration (Must-Have)

✅ **Program & Campaign Management**

- ☐ Program hierarchy (Program > Campaign > Line Item)
- ☐ Campaign configuration (budget, dates, KPIs, audiences)
- ☐ Line item configuration (bids, creatives, pacing)
- ☐ TTD campaign sync API with retry logic
- ☐ Campaign metadata enrichment
- ☐ Campaign status tracking and validation

5. Data Integration (Must-Have)

✅ **Core Integrations**

- ☐ Bombora daily file ingestion (20-60M records, <4hrs processing)
- ☐ Bombora taxonomy mapping engine
- ☐ TTD REDS file ingestion (hourly processing, <15min latency)
- ☐ Salesforce 3x daily sync (Accounts/Opportunities/Line Items)
- ☐ Billing reconciliation logic with spend discrepancy identification
- ☐ TTD Advertiser API key management per organization

6. Attribution & Reporting (Must-Have)

✅ **Basic Reporting**

- ☐ REDS data processing engine for attribution
- ☐ Attribution engine (REDS + audience + campaign data joining)
- ☐ Aggregated reporting tables for Metabase

- ☐ Metabase dashboard embedding via iFrames
- ☐ TTD Advertiser Pixel retrieval for conversion tracking

📝 MVP-1 Sprint Plan (19 Sprints)

Sprint 0-1: Foundation Setup (Weeks 1-2)

Sprint 0 Goals: Infrastructure & Development Environment

- ☐ AWS environment setup (dev/staging/prod)
- ☐ CI/CD pipeline configuration
- ☐ Database schema design and setup
- ☐ Development team onboarding and access provisioning
- ☐ Initial security framework implementation

Sprint 1 Goals: Core Backend Architecture

- ☐ Multi-tenant database implementation
- ☐ Authentication framework (Entra ID + external)
- ☐ Basic API framework and security
- ☐ Initial user and organization models
- ☐ Health check and monitoring endpoints

Sprints 2-3: User Management (Weeks 3-4)

Sprint 2 Goals: Authentication & Authorization

- ☐ Microsoft Entra ID integration
- ☐ External user authentication (Auth0/OIDC)
- ☐ Role-based access control implementation
- ☐ Session management and token handling
- ☐ Basic admin UI for user management

Sprint 3 Goals: Organization Management

- ☐ Organization creation and management
- ☐ User-organization mapping
- ☐ TTD Advertiser API key management
- ☐ Basic audit logging framework
- ☐ Organization provisioning workflows

Sprints 4-6: Data Integration Foundation (Weeks 5-7)

Sprint 4 Goals: Salesforce Integration

- ☐ Salesforce API connectivity
- ☐ 3x daily sync implementation
- ☐ Account/Opportunity/Line Item mapping
- ☐ Conflict resolution logic
- ☐ Sync monitoring and error handling

Sprint 5 Goals: Bombora Integration

- ☐ S3 file ingestion pipeline
- ☐ Daily processing automation (20-60M records)
- ☐ Schema validation and data quality checks
- ☐ Taxonomy mapping engine
- ☐ Error handling and retry logic

Sprint 6 Goals: TTD Foundation

- ☐ TTD API connectivity and authentication
- ☐ REDS file ingestion setup
- ☐ Basic TTD audience export framework
- ☐ API key management per organization
- ☐ TTD campaign sync foundation

Sprints 7-9: Audience Management (Weeks 8-10)

Sprint 7 Goals: CSV Upload & Processing

- ☐ CSV upload UI and validation
- ☐ File processing engine (max 10K records)
- ☐ S3 storage integration
- ☐ Error logging and user feedback
- ☐ Deduplication logic implementation

Sprint 8 Goals: Audience Builder Core

- ☐ AND/OR logic tree UI
- ☐ Bombora data integration
- ☐ Audience field mapping
- ☐ Preview and validation features
- ☐ Audience versioning foundation

Sprint 9 Goals: TTD Audience Export

- ☐ TTD-compatible JSON output
- ☐ UID2 identifier integration
- ☐ Batch processing and API submission
- ☐ Retry logic and failure handling
- ☐ ICP audience type implementation

Sprints 10-12: Campaign Orchestration (Weeks 11-13)

Sprint 10 Goals: Program Hierarchy

- ☐ Program creation and management UI
- ☐ Parent-child relationship implementation
- ☐ Budget validation and constraints
- ☐ Program-level reporting container

- [ ] Salesforce opportunity mapping

Sprint 11 Goals: Campaign Configuration

- [ ] Campaign creation and editing UI
- [ ] Budget allocation and flight dates
- [ ] KPI setting and audience assignment
- [ ] Real-time validation implementation
- [ ] Campaign status management

Sprint 12 Goals: Line Item Management

- [ ] Line item configuration UI
- [ ] Bid configuration and creative assignment
- [ ] Pacing controls implementation
- [ ] TTD constraint validation
- [ ] Line item status tracking

Sprints 13-15: TTD Integration (Weeks 14-16)

Sprint 13 Goals: Campaign Sync to TTD

- [ ] TTD API campaign creation
- [ ] P360 to TTD object translation
- [ ] Sync status logging and monitoring
- [ ] Error handling and retry logic
- [ ] Campaign lifecycle management

Sprint 14 Goals: REDS Data Processing

- [ ] Hourly REDS file processing
- [ ] Schema validation and data joining
- [ ] Campaign ID reconciliation
- [ ] Performance monitoring (<15min latency)
- [ ] Data quality validation

Sprint 15 Goals: TTD Advanced Features

- [ ] Seed creation from audiences
- [ ] Advertiser pixel retrieval
- [ ] Advanced campaign metadata
- [ ] TTD status synchronization
- [ ] Conversion tracking setup

Sprints 16-17: Attribution & Reporting (Weeks 17-18)

Sprint 16 Goals: Attribution Engine

- [ ] REDS + audience + campaign data joining
- [ ] Custom reconciliation rules
- [ ] Cookie-to-audience matching

- ☐ Attribution logic implementation
- ☐ Data aggregation for reporting

Sprint 17 Goals: Reporting Infrastructure

- ☐ Metabase setup and configuration
- ☐ Reporting table generation
- ☐ Dashboard embedding via iFrames
- ☐ Basic KPI calculation
- ☐ Report refresh automation

Sprint 18-19: Integration & Polish (Weeks 19-20)

Sprint 18 Goals: Admin Features

- ☐ Admin console implementation
- ☐ Manual record reconciliation UI
- ☐ System monitoring dashboard
- ☐ Audit trail UI implementation
- ☐ Basic user onboarding flow

Sprint 19 Goals: UAT Preparation

- ☐ End-to-end testing completion
- ☐ Performance optimization
- ☐ Security validation
- ☐ Documentation finalization
- ☐ UAT environment preparation

✅ MVP-1 Success Criteria Checklist

Business Continuity Requirements

- ☐ Customer organization can be provisioned
- ☐ Audience can be uploaded and created
- ☐ Campaign can be launched with associated audience
- ☐ TTD integration operational with live campaigns
- ☐ Attribution data flowing from REDS service
- ☐ Attributed reporting tables created
- ☐ Salesforce billing reconciliation functional

Performance Requirements

- ☐ CSV processing: <30 seconds per file (max 10K records)
- ☐ Bombora ingestion: <4 hours for 20-60M records daily
- ☐ REDS processing: <15 minutes per hourly file
- ☐ Campaign actions: <5 seconds response time
- ☐ Salesforce sync: <15 minutes full sync
- ☐ Page loads: <2 seconds for reporting dashboards

Integration Requirements

- ☐ TTD API: Campaign creation, audience export, REDS ingestion
- ☐ Bombora: Daily file processing and taxonomy mapping
- ☐ Salesforce: 3x daily sync with conflict resolution
- ☐ Authentication: Entra ID (internal) + Auth0 (external)
- ☐ Monitoring: System health checks and error alerting

MVP-2: Enhancement (February - March 2026)

🎯 MVP-2 Objectives

- Enhance user experience and operational efficiency
- Add advanced audience and campaign features
- Implement comprehensive monitoring and optimization

📋 MVP-2 Feature Scope

1. Advanced Audience Features

- ☐ Audience expansion API for behavioral data enrichment
- ☐ Audience versioning and rollback capabilities
- ☐ Advanced deduplication with ML-based fuzzy matching
- ☐ Audience performance tracking and optimization

2. Campaign Optimization

- ☐ Forecast generation engine with TTD reach estimates
- ☐ Auto-creation of campaigns from Salesforce triggers
- ☐ Campaign performance summary cards
- ☐ Basic optimization suggestions

3. Enhanced Integration & Monitoring

- ☐ Integration health dashboard
- ☐ Advanced data export and API access
- ☐ Enhanced audit trail with comprehensive filtering
- ☐ On-demand Salesforce sync capabilities

4. User Experience Improvements

- ☐ Enhanced user onboarding flow with tutorials
- ☐ Insight tags and annotations for campaigns
- ☐ Improved navigation and user interface
- ☐ Mobile-responsive design optimization

MVP-3: Scale (April - June 2026)

🎯 MVP-3 Objectives

- Enable marketplace functionality
- Implement advanced AI/ML features
- Add enterprise-grade capabilities

📋 MVP-3 Feature Scope

1. Marketplace Management

- ☐ Seller asset listing and management
- ☐ Buyer view of marketplace offerings
- ☐ Cross-org content syndication rules
- ☐ Marketplace-level reporting dashboard

2. Advanced Roles & Permissions

- ☐ Seller (external) role implementation
- ☐ Agency (external) role with multi-org access
- ☐ Advanced permission granularity
- ☐ Data masking and privacy controls

3. AI/ML Features

- ☐ Optimization suggestion engine
- ☐ Predictive reach and pacing models
- ☐ Automated record matching with ML
- ☐ Anomaly detection for campaign performance

4. Enterprise Features

- ☐ Open API for custom integrations
- ☐ Advanced data management and export
- ☐ Integrate sync services for campaign results
- ☐ Enhanced forecasting with market data

Risk Mitigation Strategy

🚨 Critical Risks & Mitigation

1. Timeline Risk (High Impact)

Risk: January 9, 2026 deadline with $90K penalty **Mitigation**:

- ☐ Aggressive sprint planning with 2-week cycles
- ☐ Parallel development tracks (frontend/backend/integration)
- ☐ Weekly stakeholder demos for early validation
- ☐ Contingency plan with reduced feature set if needed

2. Integration Risk (High Impact)

Risk: TTD, Bombora, or Salesforce API dependencies **Mitigation**:

- ☐ Early integration testing in sprint 2-3
- ☐ Mock services for development independence
- ☐ Comprehensive error handling and retry logic
- ☐ Fallback procedures for integration failures

3. Performance Risk (Medium Impact)

Risk: High-volume data processing requirements **Mitigation**:

- ☐ Performance testing starting sprint 5
- ☐ Auto-scaling infrastructure design
- ☐ Database optimization and indexing
- ☐ Caching strategies for frequently accessed data

4. Scope Creep Risk (Medium Impact)

Risk: Additional features beyond 44 defined features **Mitigation**:

- ☐ Strict change request process
- ☐ Weekly scope validation meetings
- ☐ Feature flag implementation for optional capabilities
- ☐ Clear MVP-1 vs MVP-2/3 boundaries

🛡️ Quality Assurance Strategy

Testing Framework

- ☐ Unit testing: 80% code coverage minimum
- ☐ Integration testing: All API endpoints and data flows
- ☐ Performance testing: Load testing for capacity requirements
- ☐ Security testing: Vulnerability scanning and penetration testing
- ☐ End-to-end testing: Complete user workflows

Deployment Strategy

- ☐ Blue-green deployment for zero downtime
- ☐ Infrastructure as Code (Terraform)
- ☐ Automated CI/CD pipelines
- ☐ Environment promotion (dev → staging → prod)
- ☐ Rollback procedures and monitoring

Success Metrics & KPIs

📊 Business Metrics

- ☐ First customer dollar processed by January 9, 2026
- ☐ 100% of current Xandr users migrated
- ☐ Platform uptime >99.5% post-launch
- ☐ Campaign performance matching or exceeding Xandr

📈 Technical Metrics

- ☐ API response times <2 seconds average
- ☐ Data processing SLAs met (CSV <30s, Bombora <4hrs, REDS <15min)
- ☐ Zero critical security vulnerabilities
- ☐ <5% defect escape rate to production

👥 User Adoption Metrics

- ☐ User onboarding completion rate >90%
- ☐ Feature adoption rate >80% for core features
- ☐ User satisfaction score >8/10
- ☐ Support ticket volume <10% of total users

Next Steps & Immediate Actions

🚀 Week 1 Priorities

1. **Project Kickoff**

   - ☐ Execute MSA and SOW
   - ☐ Resource allocation and team onboarding
   - ☐ Development environment setup
   - ☐ Third-party vendor coordination (TTD, Bombora)

2. **Technical Setup**

   - ☐ AWS account and environment provisioning
   - ☐ Repository setup and CI/CD configuration
   - ☐ Initial architecture documentation
   - ☐ Security framework implementation

3. **Stakeholder Alignment**

   - ☐ Requirements validation workshop
   - ☐ Design review and UX/UI alignment
   - ☐ Sprint planning for first 3 sprints
   - ☐ Communication protocols establishment

📅 Critical Milestones

- **September 30, 2025**: Define & Technology Foundations Complete ($100K payment)
- **November 28, 2025**: Development Complete & UAT Kickoff ($150K payment)
- **January 9, 2026**: Production Deployment (Critical deadline)

- **January 19, 2026**: Project Completion & Hypercare End ($290K payment)

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Last Updated: Post-SOW Analysis
Next Review: Project Kickoff