

# Functional and Technical Requirements Analysis

## Client Information

Field	Value
Client Name	Vantage Financial
Report Type	Functional and Technical Requirements Analysis
Generated By	FTR Analyst System
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## Executive Summary

This report presents a comprehensive analysis including business context, Functional and Technical Requirements extracted from the provided documentation, along with prioritization, risk assessment, and interdependency analysis.

## Report Overview

Section	Description	Status
Business Analysis	Comprehensive business context and processes	✓ Completed
Functional & Technical Requirements	Complete requirements extraction	✓ Completed
Prioritization & Risk Analysis	Strategic analysis and dependencies	✓ Completed

## 1. Business Analysis

### Overview

This section provides a comprehensive analysis of the business context, including processes, organizational state, challenges, quality attributes, business rules, and organizational units.

### Business Processes

#### Current Processes:

- Client meeting preparation involves multiple manual steps: staff (primarily paraplanners, financial analysts, and advisors) gather client data from multiple systems (CRMs, financial planning, portfolio management, custodians like Schwab and Fidelity, risk tools, etc.), synthesize goals/performance, build a summary/prep deck (PowerPoint/Word/PDF), present to client, and iterate on recommendations.
- Processes include redundant data gathering due to siloed systems (Black Diamond, Redtail, RightCapital, Riskalyze, Schwab, Fidelity, RetireUp, Nitrogen, etc.).
- Output is branded in Vantage templates; updates and feedback loop with staff is typical for refining meeting packs.

#### Owners:

- Paraplanner team (e.g., Ben)
- Ops/Improvements (Brittany Fast)
- Back office (Jeremy)
- Advising partners

#### Dependencies:

- Data quality and availability from integrated systems.
- Manual handoffs between roles, feedback cycles for deck/content refinement.
- IT/Infosec (FinGuard) for data security/compliance.

#### Pain Points:

- Manual, time-consuming data gathering and synthesis.
- Error-prone, risk of inconsistency.
- Siloed and redundant data across tools.
- Lack of integrated workflow automation.
- Inefficient feedback and refinement process.

#### Improvements Needed:

- Automation of data aggregation and synthesis.
- Reduction of manual interventions and handoffs.
- Integrated platform for workflow, output customization, and compliance.
- Configurable, interactive, and iterative end-user interaction with prep materials.

### Business State

#### Current State:

- Growing RIA/wealth management firm with modern tech adoption (Microsoft shop), limited automation, heavy custom process reliance.
- Early-stage, scaling (founded 2021), iterative process improvement culture, flexible but lacking in unified data/workflow.
- Recent merger reflects intention to scale and modernize using advanced tech (AI, automation, vector DBs).

#### Objectives:

- Accelerate and standardize client meeting prep.
- Improve velocity and quality of advice delivery.
- Leverage AI automation without disrupting personalized/high-touch culture.

- Maintain/increase client satisfaction.
- Support compliance and reduce operational risk.

**Market Position:**

- Positioning as a modern, responsive boutique/independent financial advisory.
- Seeks to differentiate via operational efficiency and tech-enabled personalized service.

**Organization Structure:**

- Partners/advisors (client-facing, goal-setting, final review).
- Paraplanners, operations, back office (process execution, improvement).
- Small, cross-functional teams with need for flexible role support.
- IT/security through outsourced/internal partner (FinGuard).

**Capabilities:**

- Deep knowledge in client-focused advisory.
- Emphasis on training, process adaptation, tech integration.
- Experience with process reviews, adoption of new tools, and staff upskilling.

## Problems and Challenges

**Problems:**

- Manual, redundant, inconsistent client meeting prep processes.
- Data silos and repeated data extraction; risk of missed or outdated data.
- Slow turnaround for client deliverables.
- High risk of errors and compliance misses in data/reporting.
- Lack of workflow automation and integration across current tech/tools.

**Root Causes:**

- Disconnected systems; absence of unified data layer; reliance on staff knowledge.
- Incomplete/no process documentation and workflow mapping.
- No endpoint customization/interactivity in reporting outputs.
- Manual QA and review of outputs.

**Impact:**

- Wasted staff time; slower client service; risk of inconsistent advice.
- Compliance exposure (missing rule checks, documentation gaps).
- Lower scalability as firm grows.
- Staff frustration and potential errors under growth pressure.

**Priority:**

- High to critical (significant direct impact on client experience and compliance).

## Quality Attributes

- **Performance:** Must deliver analyses, summaries, and presentations in (near) real-time (minutes not hours/days).
- **Security:** Strict – client financial data, PII, compliance, must operate within Vantage's IT infrastructure, integrate with FinGuard controls.
- **Scalability:** Should support increased client/advisor/meeting volumes and expansion of agent roles/use cases.
- **Reliability:** High: must always produce accurate, complete, auditable outputs.
- **Usability:** User-friendly, minimal training, fits into existing workflows (Teams/email/Slack/portal), supports interactive feedback.
- **Maintainability:** Must permit easy updates for templates, data sources, business rules, and new/modified agent teams.

## Business Rules

- **Essential rules:** Meeting preps must be comprehensive, consistent, up-to-date; outputs must reflect firm branding/templates; advice follows regulations and internal best practice.
- **Compliance:** Integration with compliance checklists (CFP, SEC regs), support for audit trails, versioning, and regulatory content overlays/validation.
- **Policies:** Access controls by role, data retention, segregation of duties.
- **Validation:** Automated checks for data completeness, currency, and logic (e.g., risk assessment matches portfolio).
- **Decision logic:** Agent outputs must follow "AI Your Way" (user-instructed), but support tunable creativity for advice/design.
- **Governance:** Ongoing oversight by operations/back office, with change management for major updates.

## Business Units

**• Involved Units:**

- Advisory/Partners: Set meeting objectives, review/approve outputs.
- Paraplanning/Analyst: Data gathering, prep, initial output review.
- Operations/Back Office: Process improvement, workflow mapping, staff enablement, training.
- IT/Security (FinGuard): Infrastructure, access, compliance.
- Vendor/AI Platform Provider: Customization, support, system integration.

**• Roles and Responsibilities:**

- Partners: Client relationship, ultimate output authorization.
- Paraplanners: Prep execution and detail work.
- Ops/Back office: Oversight, process governance, documentation.
- IT/Security: Access, connectivity, compliance validation.
- Vendors: Build, configure, maintain, support.

**• Dependencies:**

- Data access and system integration.
- Timely vendor support.

- Accurate requirements from business/process side.
  - **Stakeholders/Boundaries:**
    - Internal: Staff using/benefiting from the platform.
    - External: Clients (indirectly, via quality of experience), regulators (compliance), platform vendor.
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## 2. Functional and Technical Requirements

### Overview

This section contains all functional and technical requirements extracted from the documentation. Requirements are organized by category and include detailed specifications for implementation.

### Functional Requirements

- **AI Agent Roles:**
  - Supervisor agent: Orchestrates agent workflow per meeting/use case.
  - Data collection agent: Aggregates client data from multiple sources and custodians.
  - Analyst agent(s): Interprets financial goals, performance, risk, etc.
  - Advisor agent: Synthesizes, recommends, flags opportunities.
  - Presentation/Output agent: Generates branded deliverables (Word, PowerPoint, PDF).
  - Channel/distribution agent: Routes outputs via specified channels (Teams, email, Slack, shared drives).
  - Compliance/regulation agent: Checks outputs against internal/external rules and regulatory data (future scope).
  - Conversational interface agent: Enables iterative feedback and refinement.
- **User Interactions:**
  - Trigger workflows via Teams/email/Slack/portal or API.
  - Initiate meeting prep with relevant client/meeting info.
  - Review, accept, or request refinements interactively ("tweak this section/add X").
  - Approve/override agent recommendations.
  - Access historical outputs for reference.
- **Output Customization:**
  - Customizable templates and branding.
  - Tunable model "creativity" for re-phrasing, new design ideas, and chart selection.
  - Output in multiple formats (Word, PowerPoint, PDF), with support for firm color palette and visuals.
  - Optional: Suggestions for presentation improvements and new content blocks.
- **Data Integration:**
  - Connect/integrate with all key systems (Redtail, Black Diamond, RightCapital, RetireUp, Schwab, Fidelity, Nitrogen/Riskalyze, Shared Drives, etc.).
  - Support API or secure export/import (RESTful, data dumps).
  - Maintain/de-duplicate client data; handle redundant flows.
- **Compliance:**
  - Operate entirely within Vantage IT environment.
  - Enforce access controls by user/role.
  - Full audit logging of agent output, instruction tuning, and user overrides.
  - Support for regulatory overlays (CFP Board, SEC, other) and future third-party compliance dataset ingestion.
  - Human-in-the-loop required for all final outputs.
- **Business Rules:**
  - Tune agent behavior per documented Vantage processes.
  - Fine-grained, updatable instructions for each AI agent/team.
  - Support for periodic process/workflow reviews and live agent retraining.
- **Reporting:**
  - Generate meeting prep packs, decks, and summaries.
  - Produce audit/compliance logs/reports.
  - Optional: Analytics on process efficiency and usage.
- **UI/Accessibility:**
  - Intuitive UI for initiating, reviewing, refining, and approving outputs.
  - Role-based access; usability focus for non-technical staff.
  - Full accessibility standards compliance.

### Technical Requirements

- **System Architecture:**
  - Modular agent-based orchestration.
  - Core platform: Subatomic/"AI Your Way."
  - Deployed in Vantage's secure IT environment (cloud/on-prem per FinGuard standards).
  - Central unified vector database for all synthesized and source data.

- **Technology Stack:**

- Microsoft ecosystem (Teams, Word, PowerPoint, Outlook, SharePoint compatibility).
- Large Language Model integration (OpenAI, Azure OpenAI, etc.).
- Support for REST APIs, other necessary vendor-provided APIs/data export/import standards.

- **Integration Protocols:**

- RESTful APIs, webhooks, secure file exchange.
- API connectors/adaptors for supported financial tools.
- Secure OAuth2/authentication for all integrations.

- **Agent Orchestration:**

- Configurable agent teams per use case.
- Role-based execution; supervisor agent-driven process flow.
- Supports iterative tuning and feedback-based retraining.

- **Performance/Scalability:**

- Batch and real-time data ingestion support.
- Must handle growing data volumes (client growth/scaling).
- Output generation in near real-time (minutes, not hours).

- **Deployment:**

- Within Vantage IT infrastructure, leveraging existing FinGuard tooling for security/compliance.
- Multi-environment support: dev, test/acceptance, production.
- Support for efficient onboarding of agent teams for new use cases.

- **Monitoring:**

- Health and usage monitoring of all agents/workflows.
- Exception/error tracking and notification.
- Logging of all access, changes, output generations.

- **Security:**

- Full data encryption at rest/in transit.
- Access controls (role- and data-level).
- Operation solely within customer perimeter – no vendor-managed/hosted SaaS option.
- Adherence to regulatory and best practice frameworks (SEC/FINRA/CFP security, GDPR/CCPA if needed).
- Full audit trail.

- **Data Storage:**

- Central vector database storing aggregated, normalized, and de-duplicated client data and past outputs.
- Data retention per policy; regular updates/polls from source systems.
- Support for data structure evolution as new sources or schemas emerge.

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### 3. Prioritization, Risk, and Interdependencies Analysis

#### Overview

This section provides strategic analysis including requirement prioritization, risk assessment, and dependency mapping to guide implementation planning.

, RISK, AND INTERDEPENDENCIES

#### Prioritization Hierarchy

- **Critical Requirements:**

- Secure, compliant deployment in Vantage IT environment.
- Agent-based automation of meeting prep workflow (core use case).
- Integration with all core systems (CRM, portfolio, planning, risk, custodians).
- Role-based access, audit logging, and compliance support.
- Human-in-the-loop approval process.
- Output customization for branding/templates.

- **High Priority:**

- Conversational/refinement interface for iterative workflows.
- User triggering and multi-channel delivery (Teams/email/Slack).
- Performance SLAs (minute-level preparation times).
- Reporting/audit export capability.

- **Medium Priority:**

- Creativity tuning and design suggestion features.
- Third-party regulatory/standards database integration.
- Extended analytics/usage reporting.
- Automation of process documentation updates.
- AI-driven content refresh/suggestions.

- **Low Priority:**

- Advanced compliance overlays beyond planned US/EU regulations.
- New use cases beyond initial client meeting prep.
- Expanded accessibility/localization.

- **Dependencies/Sequence:**

1. Discovery, data flow mapping, and technical onboarding (Critical Foundation)
2. Core integrations (Critical)
3. Agent team configuration and workflow automation (Critical)
4. Output customization and user interaction flows (Critical/High)
5. Compliance and monitoring (Critical/High)
6. Advanced features, analytics, and additional use cases (Medium/Low)

## Risk Assessment

### Technical Risks:

- Integration complexity (API/connectivity issues with legacy or closed systems).
- Data redundancy/inconsistency across tools.
- Model drift and lack of accuracy if business rules/processes evolve but aren't documented.

### Implementation Complexity:

- Complexity in mapping and normalizing data across multiple vendors and platforms.
- Challenge in "AI Your Way" configuration (properly capturing all unique/internal business flows, minimizing manual overrides).

### Business Risks:

- Change management: staff process adoption, AI trust, training needs.
- Disruption risk if automation misses key nuances.
- Reputational/compliance damage from missing or incorrect advice.

### Security/Compliance Risks:

- Handling of sensitive PII/financial data.
- Ensuring regulatory compliance (CFP, SEC, data privacy).
- Dependence on robust audit logging and access management.

### External Dependencies:

- Vendor API stability and ongoing support.
- Third-party data availability for compliance overlays.
- FinGuard's ongoing involvement/coverage.

### Failure Impact:

- High: Compliance violations, client loss, operational disruptions, reputational harm.
- Medium if limited to missed automation of some non-critical processes.

## Interdependencies

- **Requirement Relationships:**

- Secure deployment, core integrations, workflow automation, and compliance must be completed before any advanced/creative features or reporting are useful.
- Data flow/architecture design is prerequisite for accurate agent workflow build.

- **Business Unit Dependencies:**

- Ops/back office and paraplanning must codify all current process flows for proper agent behavior.
- IT and FinGuard collaboration mandatory for initial/ongoing secure deployment.
- Partners/advisors drive final template/branding requirements and validation.

- **Prerequisites/Blocking Dependencies:**

- Data access and system mapping before agent build.
- Output customization/branding cannot begin before current template documentation.
- Conversational refinements depend on core workflow and agent correctness.

- **Parallelizable Requirements:**

- Core integration development can proceed in parallel across multiple systems once access is provisioned.
- Agent team onboarding and workflow customization able to run in parallel for multiple use cases (after foundational setup).
- User training/documentation and feedback loop can start as soon as prototype is available.

- **Critical Paths:**

- Data architecture → Integration → Agent workflow config → Output customization/approval → Rollout/training → Compliance/audit overlays.

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This comprehensive analysis synthesizes the business context, requirements, and delivery strategy for Vantage Financial's proposed AI agent platform based on the provided transcript and conversation content.

## Report Metadata

Metadata	Value
Client Name	Vantage Financial
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Metadata	Value
Generated By	FTR Analyst System
Generation Date	2025-12-03 12:10:56
Business Analysis	✓ Included
Requirements	✓ Included
Prioritization Analysis	✓ Included

End of Report