A/B Testing Strategy Document (Product-Led Growth)

Department: Product, UX, & Analytics
Objective: Standardize the methodology for running statistically significant A/B tests to optimize conversion and feature adoption.

1. Core Principles

1. **Hypothesis-Driven:** Every test must start with a clear, measurable hypothesis (e.g., "Changing the CTA button color to blue will increase trial sign-ups by .").
2. **Statistical Significance:** All tests must run until they achieve statistical significance. Do not end tests early.
3. **Tiered Risk:** Tests are categorized by risk to production stability and client experience. High-risk tests (e.g., pricing changes, core workflow logic) require mandatory Ops approval.

2. A/B Testing Workflow

Step 1: Hypothesis Formulation

- **Template:** "If we [**change**] the [**element**], then [**metric**] will [**direction**] because [**reason based on research**]."
- **Example:** "If we **change** the **initial setup wizard** to include a **pre-filled example workflow**, then **first-week feature adoption** will **increase** because users will have a model to follow."

Step 2: Test Setup & Calculation

1. **Metric Definition:** Clearly define the Primary Metric (e.g., Click-Through Rate) and Guardrail Metrics (e.g., Overall Service Latency).
2. **Sample Size:** Use the A/B testing calculator to determine the required sample size and run time to achieve statistical significance, based on expected effect size.
   - *Note:* Enterprise clients are grouped by region or segment for testing; avoid mixing critical client traffic in early phases.
3. **Test Deployment:** R&D deploys the test using the feature flagging system (e.g., Split/LaunchDarkly).

Step 3: Execution and Analysis

1. **Monitoring:** Operations monitors Guardrail Metrics for P1/P2 alerts during the entire test duration.
2. **Decision:** Once significance is reached, the Product Manager makes the call:
   - **Winning Variant:** Fully deploy the winning variant to of users.
   - **Inconclusive:** Stop the test and document findings.

- ○ **Losing Variant:** Document findings and kill the variant.

3. Experiment Tracker (Example)

Test ID	Hypothesis	Primary Metric	Required Run Time	Status	Result
AB-005	Pricing Page - Tier Names	Trial-to-Paid Conversion Rate	6 Weeks	Running	[Pending]
AB-006	Workflow Editor - Search Bar Position	Time to Launch First Workflow	4 Weeks	Complete	Variant B (Top Right) increased success by .
AB-007	AI Block Tooltip Content	Adoption Rate of AI Blocks	8 Weeks	Pending	[Pending]