

DECISIONGAP OS / VERSION 1.0 + TARGET PLATFORM

From customer uncertainty to confident sales.

Complete Product Vision
Demonstration & Help Manual

An AI operating system designed to discover why shoppers hesitate, select evidence-based sales strategies, assist customers with purchasing, and measure which changes genuinely create value.

STRATEGY / PRODUCT SPECIFICATION / DEMONSTRATION / HELP

OCTOBER 2026

01 / EXECUTIVE VISION

What DecisionGap OS is

A merchant-governed AI system that understands purchase barriers, takes permitted sales actions, and learns from reliable outcome evidence.

The central insight

Most marketing systems begin with the question: How can we persuade more people to buy? DecisionGap OS begins with a deeper question: What prevents interested customers from making a confident decision, and what should the business change?

North-star mission

Improve incremental contribution profit and customer decision quality together - never maximize sales by deception, unapproved discounts, or exploiting vulnerability.

Complete product promise

- Understand hesitation using consented behavioral signals, support questions, reviews, purchase and return data.
- Generate competing explanations rather than claiming to read customer thoughts.
- Select appropriate sales strategies based on verified facts and merchant rules.
- Speak directly with shoppers, compare products, prepare carts, and facilitate secure checkout.
- Design, approve, and evaluate controlled experiments before increasing autonomy.
- Recommend operational changes when the real issue is shipping, product fit, trust, or checkout - not advertisement quality.

The fundamental product loop

OBSERVE	DECIDE	ACT	LEARN
Signals and evidence	Hypotheses and plans	AI guidance and approved changes	Experiments and business outcomes

Target users: ecommerce merchants, direct-to-consumer teams, digital agencies, and later B2B SaaS businesses. Buyer: founder, Head of Ecommerce, Growth Lead, or Revenue Operations leader.

02 / DIFFERENTIATION

What makes the ideal product different

Ordinary AI marketing	DecisionGap OS - target differentiation
Writes and optimizes promotional copy	Investigates purchase barriers and proposes business changes
Counts clicks and attributed conversions	Measures incremental profitable outcomes and customer guardrails
Responds with generic persuasion scripts	Uses factual product information and context-appropriate guidance
Optimizes acquisition campaigns	Connects product experience, operations, trust, and commerce
Treats AI suggestions as answers	Treats AI explanations as hypotheses requiring evidence

What it is not

- Not a tool that secretly manipulates individual customers or diagnoses their emotions.
- Not a payment processor. Buyers authorize payments on supported commerce platforms.
- Not an unrestricted autonomous advertiser that can spend budgets or email anyone.
- Not a system that guarantees a conversion lift merely because AI was deployed.

Commercial positioning

Category: Autonomous Customer Decision Intelligence + AI Sales Execution. Initial wedge: Shopify-based stores with recurring cart hesitation and enough traffic to test changes. Long-term category: evidence-based revenue intelligence spanning ecommerce, services, and SaaS.

03 / FULL FUNCTIONALITY

The 10-module target platform

The complete vision contains the modules below, whether or not they are part of the initial deployable release.

MODULE	EXPECTED COMPLETE-PRODUCT CAPABILITIES
1 Data Fabric	Shopify, WooCommerce, CRM, reviews, analytics, tickets, permission and provenance management
2 Decision Intelligence	Barriers, uncertainty, competing explanations, evidence quality and counterexamples
3 Sales Strategy Planner	Expected value, margin floor, merchant objectives, brand rules, permitted tactics
4 AI Sales Representative	Live web guidance, product comparison, FAQ, escalation and buyer-authorized checkout
5 Campaign Execution	Consent-led journeys across approved channels; budget and send limits; pause/rollback
6 Experimentation	Randomization, holdouts, preregistered KPIs, statistical power and guardrails
7 Commerce Orchestration	Catalog, stock, cart, discounts with approval, payment provider handoff, order status
8 Customer Trust	AI disclosure, factual claims, transparent data handling, customer opt-out
9 Analytics & Finance	Contribution margin, retained revenue, refunds, incremental lift, cost per intervention
10 Governance	Roles, audit events, approval queues, integration permissions, security and compliance

Design principle

An AI agent should be able to recommend doing nothing, offering a less expensive alternative, or referring to a human when that best serves the customer.

04 / CUSTOMER JOURNEY

What a shopper experiences

The ideal product works inside an approved merchant storefront and makes the AI identity explicit.

1

Discover

The shopper explores a product catalog. The agent never starts an intrusive sales conversation without an appropriate user interaction or permission.

2

Understand

The buyer explains a need: price, compatibility, shipping, trust, or comparing options. The agent requests only information necessary to help.

3

Recommend

The agent selects products using verified catalog data, in-stock status, and relevant needs. It explains important tradeoffs, including a cheaper alternative when suitable.

4

Resolve concerns

The agent answers from authorized merchant policies and product facts, with uncertainty and escalation if facts are missing.

5

Facilitate purchase

Only after the buyer chooses to proceed, the agent prepares a cart and directs them to the merchant payment system.

6

Learn responsibly

Anonymous or consented outcome signals feed business reports and properly designed experiments; personal data is not repurposed without a lawful basis.

Trust guardrails

- Clearly label that the assistant is AI.
- Never invent delivery times, inventory, warranties, review counts, or discounts.
- Do not collect credit card information in chat.
- Give a simple human handoff and stop/opt-out path.

05 / MERCHANT JOURNEY

What the business owner experiences

1

Create and secure a workspace

Register organization, invite roles, configure privacy/retention and business goals in the complete platform.

2

Connect data sources

Grant least-privilege access to storefront, customer support, analytics, catalogs, and verified policy documents.

3

Review decision barriers

See evidence-linked issues (shipping uncertainty, return-policy questions, product fit), never definitive psychological diagnoses.

4

Approve strategy boundaries

Set margin floors, discount ceilings, brand claims, message channels, budget limits, escalation rules, and human approval thresholds.

5

Activate controlled AI assistance

Enable the shopper agent for chosen products or channels; track AI actions, issues, and customer satisfaction.

6

Run approved experiments

Test improvements against a randomized control, observe primary KPIs and guardrails, stop harmful changes.

7

Review profit and trust

Evaluate incremental contribution margin, return rates, support costs, complaints, repeat purchases, and customer opt-outs.

06 / GUIDED DEMO

Demo story A - The hesitant headphone buyer

A scripted, hypothetical demonstration to show how the intended DecisionGap OS experience should behave.

ACTOR	DIALOGUE / SYSTEM ACTION
Customer	"I need headphones for a noisy office, but \$149 feels expensive."
AI sales agent	"Is noise reduction the priority? I can compare the available models and show verified specifications."
Customer	"What if they stop working after two months?"
AI sales agent	"The published warranty states one year of limited coverage. I can show the exact terms before you decide."
Decision engine	Selects evidence-first guidance rather than inventing a 10% offer. Logs the strategy and supporting facts.
Customer	"The warranty helps. I want to buy."
AI sales agent	Creates an approved cart and displays the secure Shopify checkout link. Buyer completes payment independently.
Measurement	Records a checkout handoff; counts a paid order only after trusted commerce-provider confirmation.

What this demo proves - and does not

It demonstrates compliant sales assistance and a clear checkout boundary. It does not prove that the agent caused the sale; that requires a controlled comparison.

07 / GUIDED DEMO

Demo story B - The business changes, not the ad

Hypothetical case: shoppers often hesitate because shipping charges are revealed too late.

1

Evidence

Customer support logs contain repeated questions about unexpected shipping fees. The agent labels this a recurring signal, not a proven cause.

2

Competing hypotheses

High shipping price, late fee disclosure, delivery uncertainty and simple customer inattention are considered separately.

3

Candidate changes

A/B test showing accurate shipping cost earlier; improving the FAQ; or changing the shipping offer if economics allow.

4

Merchant review

A merchant verifies actual shipping policy and approves the trial, controls and budget.

5

Experimental rollout

Half of eligible sessions see the approved disclosure; a randomized control sees the existing design. Minimum sample requirements are defined before launch.

6

Decision

Adopt the change only if incremental margin and customer guardrails are favorable; otherwise document the failed hypothesis.

The creative distinction

The best AI-driven sales strategy may be to fix a product, operation, or confusing policy - not to persuade harder.

Autonomy is a ladder, not an on/off switch

LEVEL	ALLOWED ACTIONS	APPROVAL
0 - Observe	Collect authorized evidence; generate reports	No external actions
1 - Assist	Answer questions; compare; prepare carts	Customer authorizes checkout
2 - Optimize	Select from permitted strategies; recommend experiments	Merchant-approved guardrails
3 - Execute	Deploy low-risk, prespecified content changes and approved journeys	Granular role, budget and rollback controls
4 - Operate	Plan and orchestrate full campaigns across channels	Human oversight, audit and adaptive limits

Proposed agent roles

- Evidence Agent: clusters customer friction and preserves source links.
- Strategy Agent: proposes alternatives and predicts operational impacts with uncertainty.
- Sales Agent: communicates in real time, restricted by tool policies and verified facts.
- Experiment Agent: designs control groups, metrics and stop rules.
- Governance Agent: checks rules, consent, budgets and necessary human approvals.

High-impact decision

No agent should autonomously initiate irreversible purchases, generate unapproved price reductions, send unsolicited marketing, or silently modify legal policies.

Ideal application navigation

This page describes the proposed comprehensive platform - not a guarantee that every screen is implemented in the current source archive.

SCREEN	USER-LEVEL HELP
Overview	Find recent performance, high-priority decision barriers and the status of live AI agents.
Customer intelligence	Inspect feedback themes, underlying sources, uncertainties and counterevidence.
Growth Studio	Review candidate sales strategies, compare possible interventions, create and approve experiments.
Sales Agent Studio	Set tone, topics, verified product knowledge, handoff rules and allowed customer-facing actions.
Campaign Center	In the complete product: define audiences with consent, schedules, channel policies and spending budgets.
Experiment Lab	View variants, assignments, exposure, primary metrics, guardrails and test decisions.
Commerce Connect	Manage store integrations, catalog sync, availability and buyer-authorized checkout.
Analytics & Finance	Analyze measured incremental margin, orders, returns, cost, satisfaction and attribution gaps.
Customers & Consent	In the complete product: access requests, retention, unsubscribe and communication permissions.
Administration	In the complete product: teams, roles, credentials, billing, logs and enterprise policies.

10 / ANALYTICS GUIDE

What successful outcomes actually mean

METRIC	DEFINITION / WHY IT MATTERS
Conversion rate	Completed eligible orders divided by eligible visitors; segment by device/channel and experimental assignment.
Checkout handoff	Customers sent to secure checkout. This is not proof of payment.
Incremental profit	Difference in contribution profit between randomly assigned treatment and control, after appropriate costs.
Return and refund rate	Protects against incentives that drive low-quality orders.
Average order value	Helpful context but not a sufficient objective without costs and returns.
Cost per resolved conversation	Infrastructure and model spend divided by resolved, valid sessions.
Customer confidence / CSAT	Survey or consented experience signals; avoid inventing satisfaction.
Experiment exposure	Eligible customers who actually encountered the assigned intervention.
Opt-outs and complaints	Safety guardrails that can stop or roll back an apparently profitable approach.

Experiment decision checklist

- Define a single primary success metric before data collection.
- Randomize by stable visitor/session identity with contamination checks.
- Track sample size, duration, novelty effects and external promotions.
- Check guardrails and segment heterogeneity; never declare certainty from tiny differences.
- Calculate confidence intervals or credible uncertainty and document limitations.

11 / END-USER HELP

Operating instructions - quick reference

For a merchant (available in the v1 build)

- Sign in: Open the root URL, enter the configured merchant password.
- Review: Open Overview; first-run numbers are marked demo/seed data.
- Analyze: In Customer intelligence, add anonymized feedback of 12-1,000 characters.
- Draft: Open Growth Studio, inspect the evidence, select Create test draft.
- Approve: Approve a drafted experiment; this records a decision and does not deploy a real change.
- Chat: Open the store and speak with Nova, the disclosed AI sales assistant.
- Buy: In demo mode the cart creates a simulated order; with Shopify connected, the buyer is redirected to secure checkout.
- Integrate: In Commerce setup, synchronize products after entering Shopify credentials in the hosting provider.
- Control: In Settings, pause the sales agent or change supported merchant policies.

For a shopper

- Choose a product or select Ask Nova AI; share your requirements.
- Ask for feature, warranty, shipping, budget or comparison information.
- Click Add to cart, review totals and choose checkout yourself.
- In connected mode, complete the order only on the Shopify-hosted checkout page.

12 / HELP AND TROUBLESHOOTING

Frequently asked questions

Is DecisionGap OS a fully autonomous sales manager?

The complete product vision includes bounded autonomous planning and execution. V1 implements assisted selling, deterministic sales selection, guarded AI copy, growth drafts and Shopify checkout handoff, not unrestricted autonomous campaigns.

Can I deploy the project publicly?

Yes: Node.js 22+, Render/Railway/Docker, HTTPS and a persistent disk. The cloud service is account-managed by you; no public URL is predeployed.

Do I need an OpenAI API key?

No for the default guarded sales engine. An API key optionally rephrases responses; server-side rules keep control of actions, prices, products and checkout.

Can the AI automatically charge customers?

No. The buyer must explicitly proceed to Shopify checkout. The system does not process card details.

Why are my numbers simulated?

The sample workspace is seeded with synthetic metrics. When you synchronize a Shopify catalog for the first time, seed activity is cleared.

Can I connect any Shopify store?

Only one store per deployment; the initial Storefront API integration imports up to 24 available USD-priced products and the first variant. Broader catalog support requires enhancement.

How do I confirm a real sale?

Configure the optional Shopify paid-order webhook with HMAC verification. A checkout handoff is not a paid sale.

Can I put real customer personal data into the app?

Do not use it for identifiable customer records until appropriate privacy, security, consent, retention and operational protections have been built and audited.

Target architecture and deployment boundaries

LAYER	TARGET CAPABILITY / EXAMPLE TECHNOLOGY
Web applications	Customer storefront / embedded widget; merchant console; responsive accessibility-first UI
Core backend	Authenticated merchant APIs, signed integration webhooks, policy enforcement and commerce orchestration
Agent orchestration	Bounded tools with typed permissions, verified product retrieval, deterministic action validators
Data platform	Tenant-isolated transactional DB; event queue; privacy-managed analytics warehouse
Experiment service	Persistent randomization, audiences, exposure events, result analysis and rollback
Connectors	Shopify, other ecommerce, CRM/helpdesk, analytics, consented channel providers
Operations	Monitoring, audit logs, alerting, backups, secrets management, CI/CD and incident response

Release 1.0 technical reality

The included release is a single-merchant Node.js application with a static frontend, SQLite persistent state, password sessions and Shopify Storefront GraphQL integration when configured. This is intentionally simpler than the multi-tenant target design. The storage model, authentication layer, event collection, and integrations require additional work before a commercial multi-customer SaaS launch.

14 / DEPLOYMENT

Online deployment - practical walkthrough

1

Prepare project

Unzip the source; use Node.js 22+; run npm test before deployment.

2

Publish repository

Create a private GitHub repository; never commit secret keys, .env, sample customer PII, or persisted databases.

3

Choose hosting

Render: use New > Blueprint with render.yaml. Railway: deploy the Dockerfile with a persistent volume. Review plan costs.

4

Configure secrets

Set NODE_ENV=production; ADMIN_PASSWORD (12+); SESSION_SECRET (32+); SQLITE_FILE=/var/data/decisiongap.sqlite; cloud provider supplies PORT.

5

Verify service

Visit /api/health, / for merchant login and /?view=store for the public shopping experience.

6

Connect optional providers

Add OPENAI_API_KEY for LLM wording. Add SHOPIFY_SHOP_DOMAIN and SHOPIFY_STOREFRONT_TOKEN for catalog/cart; set SHOPIFY_WEBHOOK_SECRET for verified paid events.

7

Run safe pilot

Test permissions, rates, catalog facts, warranty and shipping claims, order webhooks, backups and fault recovery on a test store.

Expected cost categories: cloud compute, persistent disk, custom domain, OpenAI model usage, ecommerce platform subscription, provider message delivery when later added. Prices are not quoted because they vary by vendor, region and usage.

15 / SAFETY

Trust, privacy, autonomy and security

Mandatory controls for the ideal platform

- AI identity: every customer-facing agent discloses that it is AI.
- Verified facts: promotions, warranties, claims and availability come only from authoritative connected sources.
- Consent: only send follow-up marketing through a channel when a valid permission and preference record exists.
- Least privilege: agent tools and third-party integrations expose minimal scope.
- Explicit checkout: transactions require the buyer to act on a secure payment-provider flow.
- Merchant governance: budgets, pricing floors, approval queues, pause switches, rollbacks and audit logs.
- Privacy: data minimization, retention schedules, deletion/export requests and encryption where appropriate.
- Security: tenant isolation, role-based access, robust rate limits, backups, incident alerts, penetration testing and vulnerability management.
- Fairness: do not target vulnerabilities, invent urgency or exaggerate product value to maximize purchases.

Important deployment warning

The delivered single-merchant release has basic protections and should be used first as a controlled demo or pilot. It is not certified as compliant with GDPR, PCI DSS, SOC 2, or other enterprise standards.

Built now vs. complete target platform

CAPABILITY	CLOUD RELEASE 1.0	COMPLETE TARGET
Merchant console	Implemented; single password	Teams, SSO, roles, billing
Customer feedback	Manual anonymized feedback and themes	Multi-source connectors with evidence lineage
AI sales agent	Guarded chat; optional LLM wording	Personalized multi-channel conversations with handoff
Product catalog	Sample + Shopify sync (limited)	Multi-store, variants, pricing, availability
Checkout	Demo orders or Shopify-hosted link	Expanded commerce integrations/reconciliation
Sales strategy	Automatic evidence-linked draft proposals	Optimizing bounded plans based on real evidence
Experimentation	Variant statistics + approval records	Auto-deployed controlled tests and rollbacks
Marketing automation	Not implemented	Consent-led email/messages with provider integrations
Database	Single-merchant SQLite + JSON dev fallback	Tenant-isolated production DB and analytics
Security	Basic auth, validation and guards	Enterprise IAM, audit, monitoring, privacy controls

How to interpret this table: a capability described in the target column is a product requirement, not a claim that it is working in the archive. Live integration flows still need testing against your own provider accounts.

17 / PHASED ROADMAP

From deployable product to autonomous OS

MILESTONE	DELIVERABLE	RELEASE GATE
A / Hosted pilot	Single-merchant deployment, verified catalog/cart, feedback, growth studio	All test cases pass; merchant-controlled pilot works
B / First paying merchants	Production auth, privacy controls, backups, robust Shopify reconciliation	Security and privacy review; merchant pilot value proven
C / Measured experimentation	Real randomized storefront treatments with telemetry and guardrail reporting	Demonstrated incremental value vs control
D / Guarded execution	Approved low-risk content and consented contact journeys, budgets and rollback	Permission audits; no misleading / unauthorized actions
E / Multi-tenant platform	Organizations, roles, billing, integrations, operations and observability	Scale and compliance assessment complete

Suggested first commercial pilot

- Find 3-5 merchants who receive enough qualified traffic to measure changes.
- Interview decision-makers about their true workflow and the costs of customer uncertainty.
- Start with shipping and return-policy clarity rather than a broad autonomous campaign engine.
- Measure margin-adjusted incremental outcomes, not merely chat engagement.
- Charge for a concrete solved problem only after validating merchant willingness to pay.

18 / FOUNDER TOOLKIT

Pitch, demo script and validation questions

30-second founder pitch

DecisionGap OS in one paragraph

DecisionGap OS is a customer decision-intelligence and AI sales platform that investigates why shoppers hesitate, helps them choose suitable products, and turns customer evidence into testable growth strategies. The goal is to improve profitable sales by changing what actually blocks a confident purchase - not simply producing more advertisements.

Five-minute demo sequence

1

Show the customer problem

Start with the Overview and explain how an abandoned cart is a signal, not a diagnosis.

2

Open evidence

In Customer intelligence, display repeated shipping or warranty questions and their source counts.

3

Create strategy

In Growth Studio, draft a shipping-clarity experiment and show explicit merchant approval.

4

Sell responsibly

Visit the public storefront, ask Nova a question, compare facts, and create a cart.

5

Conclude with proof boundaries

Explain simulated orders versus Shopify checkout and how actual experiments would measure incremental profitable value.

Questions to ask pilot merchants

- Which customer objections do your current analytics fail to explain?
- Which information does a shopper need before a confident purchase?
- Would you trust an AI agent to act within preapproved rules, and where must humans approve?
- What measured outcome would justify paying for this system?