

VKUP

TURN ANY VIDEO INTO A DIGITAL MALL

A programmable commerce layer for video

Product discovery, rights, commerce, and agent access
mapped to every commercially meaningful appearance.

VIDEO + PRODUCTS + KUPS + RIGHTS = MALL

Video should not end at playback

Vkup is a proposed commerce infrastructure layer that converts any video into a structured, searchable, and transactable digital mall. The system identifies commercially meaningful product appearances, packages each appearance as a Kup, and makes those Kups available to video players, online stores, brands, sellers, creators, broadcasters, and AI purchasing agents.

The central thesis is simple: a long video can contain hundreds or thousands of product opportunities, but existing video systems treat those appearances as unstructured pixels. Vkup turns them into programmable commerce objects with product metadata, timing, visual coordinates, rights, commercial rules, and distribution interfaces.

A Kup is not a cryptocurrency or financial token. It is a structured commerce record attached to a specific appearance inside a video. Rights associated with a Kup may include the right to display a product offer, the right to sell a linked product, an affiliate attribution right, a territory or channel window, and a revenue-sharing rule.

1 VIDEO

A COMPLETE COMMERCE SURFACE

N KUPS

STRUCTURED APPEARANCE RECORDS

M RIGHTS

CONFIGURABLE COMMERCIAL PERMISSIONS

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The world's videos contain dormant inventory

Commerce is already present inside video. Clothing, furniture, food, vehicles, electronics, travel destinations, software interfaces, and branded objects appear continuously. Yet the video file normally carries no reusable commercial structure for those appearances. Discovery happens outside the video, product links become stale, and sellers cannot acquire narrowly defined rights to serve an offer against a specific appearance.

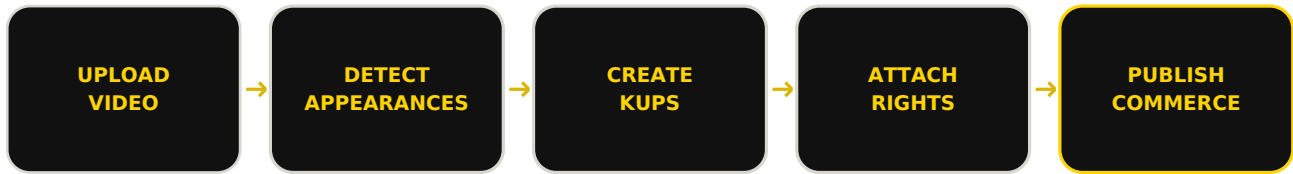
This gap becomes larger in long-form content. A feature film, series episode, sports broadcast, documentary, educational course, livestream replay, or creator video can contain a dense sequence of products and contexts. Longer duration should increase commerce potential, but current tools often reduce monetization to ads, sponsorships, or a short list of static links.

Vkup treats video as a spatial and temporal catalog.

Current limitation	Vkup response
Products are visible but not machine-readable	Create a structured Kup for each relevant appearance.
Links are detached from time and position	Bind offers to timestamps, regions, objects, and scenes.
Monetization is dominated by ads	Enable product sale, licensing, attribution, and rights-based commerce.
Long-form video is hard to merchandise	Export a complete Kup catalog and publish it through connectors.
AI agents cannot reliably inspect video	Expose normalized product and rights data through an API.

The proposed result is not merely a shoppable overlay. It is an interoperable inventory system in which the commerce layer can be updated, licensed, syndicated, and measured without re-editing the original video.

A video becomes a digital mall



Conceptual flow from media ingestion to distributed commerce.

A creator or rights holder uploads a video to Vkup or connects an approved source. Vkup analyzes the media, proposes product appearances, and allows automated or human review. Each approved appearance becomes a Kup. The video owner can then select how each Kup may be invoked: on hover, pause, scene change, timeline marker, product rail, voice request, remote control, or agent query.

The resulting video may be played through a Vkup-compatible player, embedded in a store, distributed by a broadcaster, or referenced through an API. The commerce data remains separate from the media asset, allowing product availability, seller assignment, pricing, and rights to change over time.

Core actors

Actor	Primary role	Potential value
Video owner	Controls the media and authorizes commercial layers.	New inventory, rights income, product revenue, analytics.
Creator or editor	Reviews product appearances and improves metadata.	Faster cataloging and monetization workflow.
Brand	Acquires appearance or placement rights.	Contextual visibility tied to real scenes.
Seller	Acquires the right to serve an offer for a product or substitute.	Qualified traffic and measurable sales.
Store or platform	Publishes Kups through player, app, or API.	Richer product discovery and longer engagement.
Viewer or agent	Invokes Kups and chooses offers.	Lower friction from discovery to purchase.

A programmable record for an appearance

A Kup is the minimum addressable unit in the Vkup system. It connects visual evidence to product identity, commerce instructions, and enforceable permissions. The object can represent an exact product, a category, an attribute, a service, or a destination, depending on detection confidence and the owner's publishing choice.

Field group	Illustrative contents
Media reference	Video ID, version, start and end time, frame region, scene ID.
Object identity	Detected label, product candidate, brand, model, category, confidence.
Appearance metrics	Duration, visibility, prominence, repetition, interaction priority.
Commerce payload	Product URL, offer ID, seller ID, price reference, availability.
Rights payload	Owner, permitted use, territory, channel, term, exclusivity, revocation.
Attribution	Creator share, seller share, platform share, campaign and conversion IDs.
Integrity	Object version, audit history, source evidence, reviewer status, hash.

Illustrative Kup weight

Vkup may calculate a non-financial ranking score to prioritize appearances. One possible form is:

$$\text{Kup Weight} = 0.25V + 0.20D + 0.20P + 0.15C + 0.10R + 0.10A$$

where V is visibility, D is duration, P is visual prominence, C is identification confidence, R is repetition, and A is commercial availability. Weights are configurable by media type and are not claims of product quality, sales probability, or guaranteed revenue.

Example record

Key	Example
Time	00:18:42.500 to 00:18:49.900
Region	x=0.58, y=0.21, width=0.24, height=0.38
Identity	Black travel backpack, candidate model confirmed by reviewer
Invocation	Pause card + product rail + agent query
Rights	Non-exclusive seller right, EU, web player, 90 days
Status	Published, version 4

A reviewable and reversible workflow



The workflow separates machine proposals from owner-approved publication.

1. Ingest

The user uploads a file or connects an authorized video source. Vkup records provenance, media ownership declarations, technical properties, and processing consent.

2. Analyze

Computer vision, speech, text, scene, and catalog signals propose product appearances. Detection output remains provisional until it meets configured thresholds or is reviewed.

3. Review

The owner or delegated reviewer accepts, rejects, merges, corrects, or categorizes candidates. Review decisions become part of the audit history.

4. Attach rights and commerce rules

The owner chooses whether a Kup is informational, linked to an owned store, open to eligible sellers, reserved for a brand, or unavailable for commerce.

5. Publish

Kups can be exported to Excel or JSON, published to Shopify through an app, served through an API, or displayed through a compatible player.

6. Measure and update

Views, invocations, product opens, add-to-cart events, purchases, unavailable items, and rights expirations inform future optimization.

Separate what appears from who may sell it

Vkup distinguishes the appearance itself from the commercial permissions attached to it. This separation makes it possible for a video owner to retain media ownership while granting limited, auditable rights to brands and sellers.

MEDIA RIGHTS

Who may publish or modify the video

APPEARANCE RIGHTS

Who may associate a brand or product with the scene

SELLING RIGHTS

Who may serve an offer against the Kup

ATTRIBUTION RIGHTS

Who receives credit or revenue share

DATA RIGHTS

Who may access analytics and export records

Illustrative rights instruments

Instrument	Scope	Commercial logic
Appearance license	Product or brand association with a defined appearance.	Fixed fee, campaign fee, or auction.
Right to sell	Permission to present a purchase offer for the linked item.	Fixed term, revenue share, or performance fee.
Category substitution	Permission to offer an approved substitute when the exact item is unavailable.	Rules-based eligibility and ranking.
Territory window	Rights limited by country or region.	Local sellers and regulatory control.
Channel window	Rights limited to a player, store, broadcaster, or partner app.	Syndication without global exclusivity.
Data license	Access to aggregated performance data.	Subscription or enterprise agreement.

A rights listing is not ownership of the underlying trademark, product, media, or intellectual property unless an explicit contract says otherwise. The platform must verify authority, preserve takedown controls, and prevent sellers from implying unauthorized endorsement.

Create once, invoke everywhere

Vkup is designed as a layer that can travel with the video across commerce environments. Distribution should not depend on a single storefront or player.

Surface	Delivery method	Viewer experience
Vkup Player	First-party web player with Kup invocation.	Hotspots, product rail, pause cards, search.
Embedded player	SDK for merchant and publisher sites.	Configurable interaction without leaving the host.
Shopify	App publishes products and Kup-linked collections.	Store-native product pages and checkout.
Excel export	Rows for appearances, weights, products, rights, and status.	Operational review, bulk editing, partner handoff.
API	Versioned endpoints and webhooks.	Programmatic retrieval, updates, and analytics.
AI agents	Structured search and action interfaces.	Ask what appears, compare offers, and prepare a purchase.
Broadcasters	Enterprise player integration and content feeds.	Commerce layer available across catalogs.

Invocation modes

VISUAL

HOTSPOT OR MARKER

CONTEXT

PAUSE OR SCENE PANEL

AGENT

NATURAL-LANGUAGE QUERY

REMOTE

TV AND BROADCAST CONTROL

The owner can choose a low-interruption experience for entertainment, a product-dense experience for shopping content, or a fully agent-mediated mode where the viewer asks for products without visible overlays.

A modular commerce layer around immutable media

EXPERIENCE

Player, mobile, TV, store, agent

DISTRIBUTION

SDK, Shopify, API, exports, webhooks

COMMERCE

Offers, seller routing, attribution, checkout handoff

RIGHTS

Ownership, grants, territories, windows, revocation

KUP REGISTRY

Versioned appearance objects and audit events

INTELLIGENCE

Vision, speech, OCR, matching, confidence

MEDIA

Source files, derivatives, fingerprints, provenance

Design principles

- Separate media from commerce metadata so product and rights updates do not require video re-encoding.
- Use immutable event records for financially meaningful state changes and rights assignments.
- Require idempotent processing for ingestion, publishing, payment confirmation, and credit allocation.
- Version every Kup and retain the evidence used to approve identity and ownership claims.
- Expose least-privilege APIs and short-lived credentials for player and partner integrations.
- Make removal and correction first-class operations, not exceptions.

Illustrative service boundaries

Service	Responsibility
Media Service	Upload, storage, transcoding, fingerprinting, access control.
Kup Service	Appearance records, coordinates, versions, review state.
Catalog Service	Product matching, identifiers, attributes, alternatives.
Rights Service	Grants, terms, eligibility, ownership evidence, takedowns.
Commerce Service	Offers, seller ranking, price references, checkout handoff.
Ledger Service	Pre-credit movements, processing consumption, refunds, audit.
Analytics Service	Events, attribution, privacy controls, reporting.

Commerce depends on verifiable authority

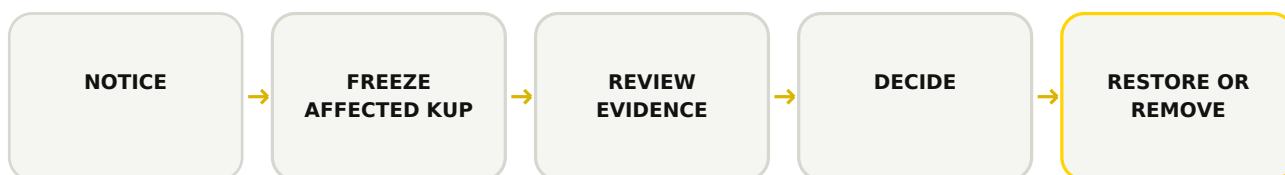
Vkup creates new monetization opportunities only if product identity, rights, payments, and attribution can be trusted. The platform should therefore default to reviewable evidence, constrained permissions, and reversible publication.

Risk domain	Control objective
Media authority	Verify that the uploader may process and commercialize the media.
Product identity	Expose confidence and review status; avoid false exact-match claims.
Trademark and endorsement	Prevent listings from implying unauthorized affiliation.
Seller quality	Verify sellers, monitor fulfillment, and support removal.
Payment integrity	Use server-confirmed payment events and an append-only ledger.
Personal data	Minimize collection, define retention, and separate identity from analytics.
Content safety	Detect restricted products, illegal content, and jurisdiction-specific limits.
System security	Encrypt sensitive data, rotate secrets, monitor access, and test recovery.

Privacy model

The system should process only the data necessary to provide commerce features. Viewer analytics should be pseudonymous by default, account data should be logically separated from behavioral data, and partners should receive aggregated results unless an explicit lawful basis permits more.

Rights dispute flow



Multiple revenue layers, one commerce graph

Vkup can combine infrastructure revenue with transaction and rights revenue. The model should begin with simple, auditable charges and expand only after the product demonstrates reliable processing and conversion.

Revenue line	Customer	Possible basis
Video processing	Creators, publishers, brands	Per processed minute or contracted volume.
Platform subscription	Stores and publishers	Workspace, catalog, analytics, and team tiers.
Commerce fee	Seller or rights holder	Percentage or fixed fee on attributable purchases.
Rights marketplace fee	Buyer and/or seller	Listing, settlement, or success fee.
API and SDK	Platforms and broadcasters	Usage, capacity, or enterprise license.
Managed review	Large catalogs	Human verification and rights operations.

Economic alignment

- Video owners control whether and how their content becomes commercial inventory.
- Sellers pay for defined access rather than undefined advertising exposure.
- Brands can acquire narrow rights with measurable scope, time, and territory.
- Viewers gain discovery utility without requiring constant interruption.
- Vkup earns when it processes, distributes, or helps execute verifiable commerce.

No revenue line should be represented as guaranteed. Pricing, conversion, demand, and rights value depend on market adoption, content quality, merchant supply, and lawful authorization.

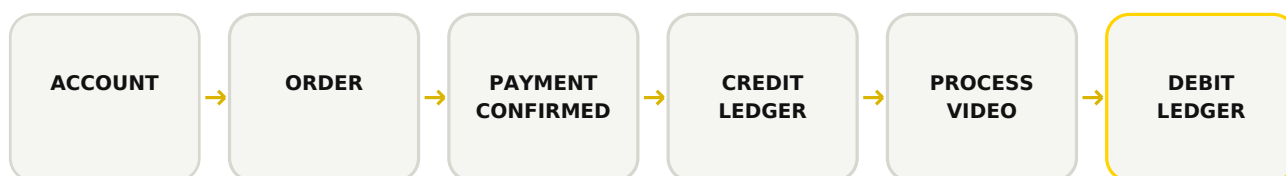
A service commitment, not an investment token

Vkup may offer pre-credit to early customers as a contractual right to future video-processing capacity. The proposed unit is a processing minute redeemable only for services supplied directly by the issuing Vkup entity.

Intended characteristics

- Non-transferable and non-tradable between users.
- Not withdrawable as cash and not usable with third-party merchants.
- No interest, yield, profit share, appreciation promise, or governance right.
- Recorded in an account ledger with purchase, redemption, adjustment, and refund events.
- Subject to published launch, expiration, refund, tax, and service-availability terms.
- Sold only after the issuing entity, payment channel, and required consumer disclosures are ready.

Proposed operating flow



Ledger controls

Control	Purpose
Server-side pricing	Prevent client manipulation of minutes, price, currency, or discounts.
Signed payment callback	Credit only after an authenticated, final provider event.
Idempotency	Prevent duplicate credit from repeated callbacks or retries.
Double-entry style records	Keep balance changes traceable and reconcilable.
Restricted admin adjustments	Require reason, operator identity, and audit history.
Refund reserve	Maintain the operational ability to honor the published policy.

Any public pre-credit offer should identify the legal seller, define exactly what one minute covers, state taxes and fees, disclose delivery timing, explain refunds, and avoid language suggesting an investment. This whitepaper does not itself offer pre-credit for sale.

Build the commerce graph in controlled stages

Phase	Product objective	Exit evidence
0 - Demonstrate	Interactive website, sample player, rights narrative, early waitlist.	Users understand the mall concept and request access.
1 - Structure	Upload, detection, review, Kup registry, Excel and JSON export.	Accurate reviewed catalogs for pilot videos.
2 - Distribute	Player SDK, Shopify connector, product rail, analytics.	Kups publish reliably across partner surfaces.
3 - Monetize	Seller onboarding, attribution, rights grants, billing.	Traceable commercial transactions and rights income.
4 - Scale	Broadcaster tools, enterprise controls, API ecosystem.	High-volume catalogs and partner integrations.
5 - Agent commerce	Natural-language product discovery and purchase preparation.	Agents can query and act on normalized Kup data.

Core operating metrics

KUPS/MIN

APPROVED DENSITY

PRECISION

IDENTITY ACCURACY

PUBLISH

TIME TO COMMERCE

INVOKE

VIEWER INTERACTION

Metric	Why it matters
Detection precision and reviewer correction rate	Measures whether automation reduces rather than creates work.
Median time from upload to approved catalog	Measures operational speed.
Product availability and match freshness	Measures commercial usefulness.
Kup invocation and product-open rate	Measures viewer discovery value.
Attributed purchase and revenue per 1,000 views	Measures monetization without implying guarantees.
Rights dispute and takedown rate	Measures trust and authorization quality.
Processing gross margin and refund reserve coverage	Measures economic sustainability.

The model is ambitious and must be falsifiable

Risk	Potential effect	Mitigation direction
False product matches	Misleading listings and weak trust.	Confidence labels, review tools, correction history.
Insufficient rights	Claims, takedowns, or partner rejection.	Authority evidence, scoped grants, rapid freeze and review.
Viewer interruption	Lower retention and publisher resistance.	Owner-controlled invocation modes and agent-first options.
Stale products	Dead links and poor conversion.	Availability checks, substitution rules, seller redundancy.
Seller misconduct	Fulfillment failures or reputational damage.	KYB, seller scoring, escrow or approved checkout partners.
Payment and refund exposure	Liquidity pressure and disputes.	Limited release, clear terms, reserve policy, ledger reconciliation.
Regulatory classification	Restricted sale or delayed launch.	Closed-loop design, jurisdiction review, licensed providers.
Platform dependency	Connector or policy disruption.	Portable API, exports, multi-channel distribution.
High processing cost	Uncompetitive unit economics.	Tiered analysis, caching, human review only where valuable.
Low buyer demand	Rights inventory has little value.	Pilot with high-intent categories and measure before scaling.

Critical validation questions

- Will viewers invoke products often enough to create measurable value without harming watch time?
- Can product identity reach acceptable precision at a processing cost customers will pay?
- Will video owners grant sufficiently clear rights for commerce and seller participation?
- Can seller offers remain accurate across regions, channels, and long content lifecycles?
- Can the platform prove incremental commerce rather than merely reattribute existing purchases?

A commerce operating system for video

Vkup proposes a change in the basic unit of video commerce. Instead of treating a video as a single content asset surrounded by advertisements, Vkup treats every meaningful appearance as a structured opportunity that can be identified, governed, distributed, and transacted.

The long-term vision is a world in which any authorized video can become a digital mall, any product appearance can become a reusable Kup, and any eligible store, broadcaster, or AI agent can invoke the relevant commerce layer under explicit rights.

The immediate work is deliberately narrower: prove accurate Kup creation, enable owner review, publish portable catalogs, connect a player and store, and measure whether users find the resulting commerce experience useful. Rights markets and agent commerce should follow evidence, not precede it.

Any video. Every product. One programmable commerce layer.

Document status

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Product status	Concept and demonstration stage; capabilities described as proposed unless stated otherwise.

Important disclaimer

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