



Building the Infrastructure for Video Superintelligence™

The Problem with Video Today

AI can understand video — but can't act on it

Video accounts for approximately **82 per cent of all internet traffic** and is the dominant format through which knowledge, culture, sport, commerce and education now move. Yet despite the rapid advances in artificial intelligence, video itself has not changed architecturally for decades. It is still stored, managed and distributed as a finished, sealed file.

To create a different version, to personalise what someone watches, you must re-edit and re-render an entirely new file. Every time, for every person.

The world's leading AI systems, including Google's Gemini, Meta and Anthropic's Claude, can now analyse video with remarkable precision. They can identify key moments, understand context, and describe exactly what should go where. But when asked to assemble a personalised video from those insights, to go from analysis to a playable result, they cannot. Google's own video tools generate new content from prompts. None of them can reach into an existing archive, select specific moments, and deliver a personalised result without rendering an entirely new file.

The next wave makes this more urgent, not less. Agentic AI, autonomous systems that independently plan and execute multi-step tasks, will need to assemble and deliver video as part of their workflows. Without infrastructure to act on video directly, the gap between what an agent understands and what it can deliver becomes a hard ceiling on capability.

Every personalisation requires



re-editing



re-rendering



creating a new version for each user

Modern AI can



analyze video



understand context



identify key moments

But it cannot



reach into existing archives and select specific moments



assemble a personalised result without rendering an entirely new file

The intelligence exists. The infrastructure to act on it does not.

That gap is where ION sits.



What ION Is

ION is the missing infrastructure between AI and video

Instead of treating video as a static file, ION turns it into a programmable data structure, a lightweight reference object measured in kilobytes not gigabytes, containing no video data at all. A precise map of where every moment lives.

A two-hour film is virtualised in seconds into a lightweight reference object, measured in kilobytes, not gigabytes, that contains no video data at all. It is a precise map of where every moment lives. Any AI system or application can then instruct ION to assemble any combination of those moments, for any individual, in real time, with zero re-encoding and zero file duplication.

Why This Infrastructure Didn't Exist Before

A unique, defensible foundation no competitor can replicate

82%

of all internet traffic is video
(Cisco VNI)

~\$1T

global video market by 2030
(Omdia)

1

company holds the granted patents
ION

ION's founder, Finbar O'Hanlon, began solving this problem in 2007.

The result is a granted patent portfolio spanning the United States, Australia, Canada, Europe, South Korea, China, and Hong Kong, all founded on a single priority date in August 2007.

ION is the only company in the world that holds granted patents covering the virtualisation of video for dynamic assembly.

A new patent (2026) expands this to token-governed video resolution.

How It Works

From video to personalised experience — in three steps

ION operates in three steps, regardless of the industry or use case:



Virtualise

ION reads the file, creates a precise index of every moment, and produces a lightweight virtual container. The original file is untouched and never duplicated.



Select

AI identifies the most relevant moments — highlights, training content, or targeted segments.



Assemble & Deliver

ION instantly builds a unique video for each viewer in real time — with no rendering and no new files. The content owner retains full control throughout.

ION does not replace AI models. It makes them effective for video. AI provides the intelligence to understand content. ION provides the infrastructure to assemble and deliver it.

Who ION Enables

Built for every industry powered by video

ION's technology applies to any sector where video is central to how information is delivered, experienced, or monetised.



Media and Entertainment

Real-time personalised viewing. No re-encoding or duplication.



Broadcast & Streaming

AI-assembled feeds adapting to each viewer, delivered as data, not files.



Sports & Live Events

Instant highlights and personalised replays, unique to every viewer.



Advertising & Marketing

Hyper-targeted video campaigns built from existing assets, personalised at scale with full rights auditability.



Education & Training

Adaptive content from one source, tailored without multiple versions.



Telecommunications

Efficient delivery through virtual assembly — no infrastructure rebuild needed.



Healthcare & Life Sciences

Secure, consent-governed delivery of sensitive video content, with rights enforced at the point of assembly.



Enterprise & Workforce

Training, compliance, and communications content assembled dynamically for different teams and regions from a single master library.



Security & Defence

Classified and sensitive video assets delivered and assembled dynamically, with sovereignty, access controls and rights enforcement built into the infrastructure layer.

Why This Cannot Be Replicated

ION holds a granted patent portfolio with a priority date of August 2007, covering the virtualisation of video into reference-based containers and the dynamic assembly of those containers at runtime without rendering. These patents have been independently validated by Alder IP across three separate opinions, validity, novelty and inventive step, and freedom to operate, all returning positive findings.

The newest addition to the portfolio, filed globally in March 2026, covers token-governed video resolution: a control layer that governs who can access specific video moments, under what conditions, and with what rights. This enables payments, licensing, consent enforcement, and data sovereignty to be embedded directly into the assembly process.

No other company holds these patents. No other company has spent 18 years developing and validating this architecture at production scale.

The Market Opportunity

The global video market is projected to exceed one trillion dollars in annual revenue by 2030 (Omdia, 2025), with video dominating internet traffic. Advances in AI and personalised content create urgent demand for infrastructure that can act in real time. Video already represents the single largest category of internet traffic globally, and every new capability added by foundation models, video understanding, moment identification, contextual personalisation, increases the demand for infrastructure that can act on those insights without rendering.

Google, OpenAI, Meta and Anthropic have invested hundreds of millions of dollars demonstrating that users expect AI to deliver personalised video experiences. Both companies have also demonstrated, through the boundaries of their own products, that this cannot be done without a new infrastructure layer. Their advances in video intelligence validate the market. The rise of agentic AI, systems that act autonomously across tasks, accelerates that demand further: every agent that operates in a video-rich environment will require infrastructure to assemble and deliver content dynamically. ION provides the means to fulfil it.

ION is not competing with Google or Anthropic. The relationship mirrors Stripe and the banks, or AWS and the software companies built on top of it. Intelligence companies build intelligence. Infrastructure companies build the pipes. Both capture value. Neither is optional.

The destination is **Video Superintelligence™**, a world where AI agents dynamically assemble, personalise and govern video experiences for every individual, at any scale, in real time. That world requires infrastructure.

ION is building it.