# Analytics Cost Ready-Reckoner

Price video analytics per camera per month across the three levers and four tiers, then read off the break-evens. Representative US list prices, 2026.

## A. The three levers (what you pay for)

- Bandwidth - move the video to the analysis. Unit: Mbps of sustained upload; ~$0 at the edge.
- Compute - run the AI model. Unit: $/GPU-hour or $/minute. The lever that swings the most.
- Storage - keep the recorded video. Unit: $/GB-month. Grows with retention x fleet size.
- Baseline camera: 4 MP at 2 Mbps (H.265) = 648 GB/month = 43,200 analyzed minutes/month.

## B. Cost per camera / month, continuous (same analytic)

- On-camera edge ~= $3 (amortized smart-camera premium + local storage; bandwidth ~$0).
- On-prem GPU server ~= $8 ($8,000 / 60 months + power, ~24 streams; local storage; LAN).
- Cloud rented GPU ~= $45 (~$24 compute + ~$15 cloud storage + ~$5 uplink and egress).
- Cloud per-minute API ~= $4,350 (43,200 min x $0.10 = $4,320) - continuous = the wrong tool.

## C. The break-even points

- Per-minute API vs your own GPU: the API is cheaper only below ~8 min of analysis/camera/day.
- Rent vs buy the GPU: buying beats renting once you expect to run it longer than ~15 months.
- Edge-camera premium (~$150) pays back against a per-minute API in under a day.
- Cloud storage (~$15/mo) passes a local disk (~$19 one-time) in ~5 weeks; ~$900 over 5 years.

## D. The multipliers (each pushes a different lever)

- Resolution / bitrate: pushes all three (2 -> 4 -> 8 MP roughly doubles each step).
- Inference frame rate: pushes compute only - infer at 5-10 fps while recording at 25-30.
- Retention days: pushes storage only - double the days, double the storage line.
- Duty cycle and number of models: push compute - motion-only analysis cuts it 80-95%.

Match the meter to the workload: own or rent a GPU for continuous analysis, call a per-minute API only for occasional clips, and pre-filter at the edge so the expensive tiers see only the minutes that matter. Engineering guidance, not legal advice - a privacy gate (GDPR Ch. V, EU AI Act, BIPA) can rule out the cheapest tier for biometric or cross-border video. Rates are representative US list prices (2026) and vary by region, commitment, model, resolution, and stream density. Sources: AWS Rekognition / EC2 G6 / S3 pricing; Google Cloud Video Intelligence; NVIDIA L4 / DeepStream; Seagate/WD surveillance-drive pricing; US EIA commercial electricity; ITU-T H.265.