

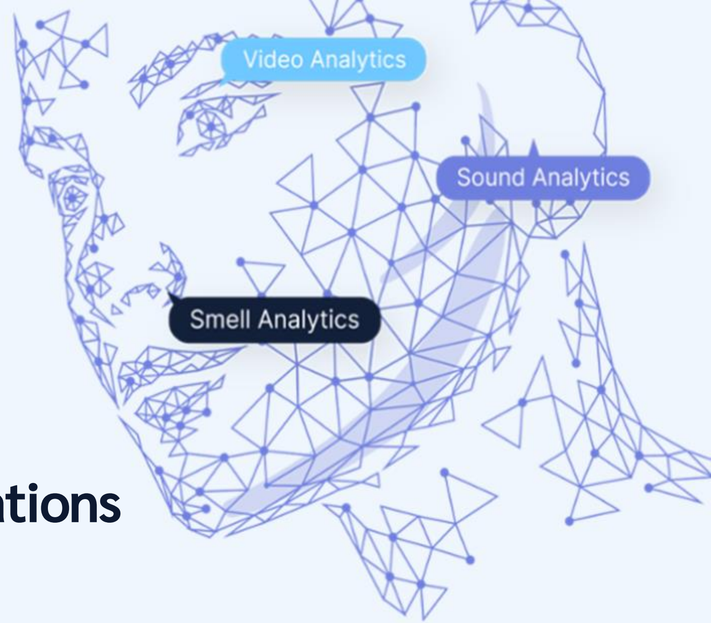
iOmniscient

iQ-SMART OIL & GAS

Safety and operational analytics across the energy lifecycle

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Outcomes across the lifecycle

Applications span exploration, refining, transportation, and retail



SAFETY

PPE, chemical hazards, gas leaks, smoke, fire, noise, slips, falls, and evacuation

LOGISTICS

Driver authentication, authorized vehicle admission, loading/unloading control, and car park management

OPERATIONS

Location-time analysis, equipment monitoring including conveyor belt stalling, overheating, sound-based malfunction detection, and defect checks

SECURITY

Databaseless access, intrusion identification, and theft prevention

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Exploration

Remote and offshore activity requires monitoring across safety and equipment risks



Remote operations

Detect **smoke and fire** despite some obscuration.

Identify **gas leaks** and equipment conditions that require **preventive maintenance**.

Check that workers wear **PPE** and support evacuation management.

Offshore drilling can also detect **boats approaching the platform**.

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Refineries and Chemical Plants

Safety and operations form two coordinated application groups

SAFETY

PPE, smoke and fire,
gas and oil leaks,
contactless access,
and traffic management



OPERATIONS

Preventive maintenance,
theft detection,
unauthorized-area intrusion,
flare management,
and effluent management

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Pipelines and Transportation

Coverage extends across exposed routes, stations, underground paths, and terminals

Remote inspection

Detect intrusion, theft, equipment conditions, and meter readings.

Autonomous drones can detect and inspect gas leaks along pipelines in remote areas.

Underground routes

Detect construction or digging above known pipeline paths. Related brochures cover road, rail, sea, and terminal solutions.



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Retail Operations

Forecourt monitoring supports payment, safety, and property protection



Payment

Detect vehicles leaving without paying, record the number plate, and raise an alert if the vehicle enters another fueling station.

Safety

Detect smoke and fire despite some obscuration.

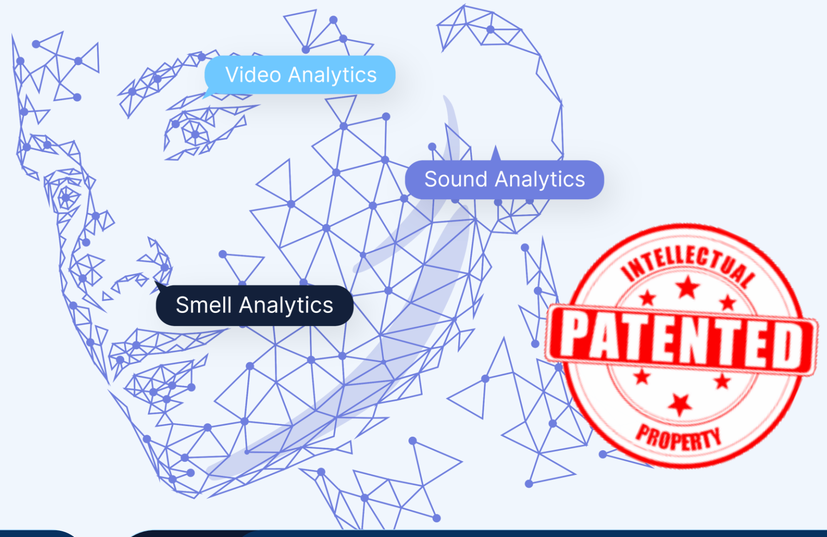
Property

Detect illegal dumping or graffiti and determine who was involved.

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Operating model

Cost, autonomous response, and privacy shape deployment



01 COST EFFECTIVE

Uses existing
CCTV infrastructure

No GPUs
16×↓ carbon footprint

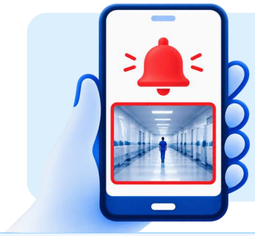
Fewer cameras
Lower-resolution cameras

90% less
Storage and network bandwidth

02 AUTONOMOUS RESPONSE

Detect › **Find** › **Respond**

When there is an event, the system can find the appropriate responder and tell them where to go and what to do.



They do not require a large control room environment – **a smart phone becomes the control room.**

03 PRIVACY PROTECTION

All systems are privacy protected.

Operators cannot recognize people in protected streams while the system still raises safety, security, and operational alerts.

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About iOmniscient

Partnership

All iOmniscient Products run exclusively on Intel based computing hardware using OpenVINO™

- The use of Advanced AI technology that goes beyond Deep Learning enables iOmniscient to run its systems without the need for 3rd party GPUs.
- This reduces the power required by a factor of 16 – resulting in a 16-fold reduction in the carbon footprint.
- This is just one part of a multi-faceted program to help customers to implement Sustainable Systems.

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About iOmniscient

- iOmniscient is an **Ethical AI** company.
- It offers **multi-sensory (video-sound-smell) Artificial Intelligence based analytics for Autonomous Systems.**
- It focuses on ensuring **Outcomes** for its customers.
- With **over 2 decades of experience,** iOmniscient systems have been demonstrated to be **robust,** operating with high accuracy and few false alarms specially in **complex and crowded** environments.
- By design, its systems **reduce the cost of infrastructure** required:
  - they can use existing cameras
  - they require fewer cameras with lower resolution
  - they require 90% less storage and network bandwidth
  - they are computing light and require no GPUs
  - they allow autonomous operations requiring fewer personnel to operate
- iOmniscient has implemented projects in **70 countries.**
- With over **70 international patents** many of its capabilities are unique and unavailable from any other source.





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