

# VCA SERVER

## TURNKEY ANALYTICS SERVER



### All-in-One, Stand-Alone Analytics Server and Reference Design

- Rapidly add analytics functionality to a system, VMS, PSIM or NVR software
- Open and standard interfaces for rapid integration
- Also operate as stand-alone server-based analytics solution
- Stream video directly from any IP camera or VMS via RTSP
- State-of-the-art Machine Learning and AI tracking algorithms
- Full analytics metadata stream provided to facilitate forensic search or other value add applications.
- No special hardware required: up to 32 channels supported on Intel i5
- Customisable out-of-the-box HTML5 user interface for analytics configuration; Configure rules and review events using your web browser on any device (via Chrome on Windows, Linux, Mac, Android)
- Edge or server based options. VCA is embedded in a wide range of cameras, integrated into a number of VMS or with as a standalone server.

VCAserver is an all-in-one analytics server and reference design that enables the rapid integration of VCA Technology's AI tracking and classification technologies to 3rd party systems such as VMSs, NVRs and PSIM systems.

In standalone mode, VCAserver can stream video from a range of input sources and generate events in a range of formats.

VCAserver has been designed from the ground-up to be easy to use and integrate. With video streaming, event alerting and a HTML5 configuration interface out-of-the-box, simple integrations can be completed in less than a week.

### ANALYTIC & AI FEATURES



Zones



Tamper Detection



Object Tracker



Presence



Counting



Counting Lines



Colour Filter



Logical Rules



Meta Data



3D Calibration



Appear Filter



Disappear Filter



Direction Filter



Dwell Filter



DL-Filter



Face Detection



Enter Filter



Exit Filter



Stopping Filter



Speed Filter



Tailgating



Abandoned Object



DL People

# VCA SERVER

## TECHNICAL SPECIFICATIONS

### BEST-IN-CLASS ANALYTICS

Over 500,000 channels of VCA Technology's analytics have already been deployed on PC and embedded platforms. VCAserver can upgrade any compatible IP camera, VMS, NVR or PSIM with a best-in-class analytics solution with minimum integration effort.

### WEB-BASED CONFIGURATION INTERFACE

A HTML5 web based interface supports configuration of detection rules and notifications on desktop and mobile devices with the option for OEM customisation and interface skinning.

### EASY INTEGRATION

Easy integration with a wide range of VMS, NVR and PSIM platforms over HTTP, TCP, digital output or email. VCA Technology's simple token based message format, provides relevant metadata to the your platform. Enabling real-time analytics alerts, metadata overlay and forensic search capabilities from within the native VMS environment.

### ADVANCED AI ANALYTICS ENGINE

State-of-the-art deep learning classification and people tracking engines for reduced false alarms and accurate business intelligence metadata.

### LOGICAL RULES

Simple to use logical rules engine, allowing the coupling together of rules to create advanced behaviour detection. Create bespoke alarms and events.

### OPEN STANDARD API

Fully documented, open standard, REST API and metadata streams, for simple integration into a range of customized monitoring scenarios and applications. Facilitates simple event reporting to real-time metadata streaming for forensic search.

### STAND-ALONE ANALYTICS SERVER MODE

VCAserver can be deployed as a stand-alone analytics server, streaming video from cameras or VMSs directly, and is also available as a reference design for deeper integrations.

#### SYSTEM

<b>Supported OSs</b>	Ubuntu 16.04LTS, Ubuntu 18.04 LTS, Windows 10
<b>Supported Browsers</b>	Chrome (version 61 and above)
<b>Supported Clients</b>	PC, Android
<b>Software Update</b>	Manual
<b>Supported Compression Format</b>	H.264, MPEG-4

#### BASIC EVENT RULES

<b>Event Sources</b>	Analytics Rules, Loss of Signal, Interval (heartbeat), Schedule, HTTP, Arm, Disarm
<b>Event Actions</b>	E-mail, TCP, HTTP, Arm/Disarm

#### PERFORMANCE

<b>Number of channels</b>	Intel i5 2.40Ghz (4GB RAM)	32ch (D1 @ 15fps) 12ch (1080p @ 15fps)
	Intel i7 3.2GHz (16GB RAM)	64ch (D1 @ 15fps) 24ch (1080p @ 15fps)

#### VCA RULE SETS

<b>Presence:</b>	Trip wires, zones, tampers and object tracker Presence ai: as "presence" plus deep learning filter and instant analytics
<b>Count:</b>	Zones, tampers, count lines, counters
<b>Count ai:</b>	As "count" plus dl people tracker and metadata
<b>Pro:</b>	Complete VCA rule set including logical rules, no deep learning tools or face detection
<b>Pro ai:</b>	Complete VCA

#### SUPPORTED ANALYTICS

<b>Tamper</b>	Camera Tamper Alert, Loss of Video Input Connection Alert
<b>Object Detection, Tracking and Classification</b>	Robust object tracking engine tracks through occlusion, high probability of detection. Deep learning classification for reduced false positive rate. Multiple modes permit optimization for intrusion detection.
<b>Event Actions</b>	Digital Output (DO) E-mail, TCP, HTTP, Arm/Disarm
<b>Object Counting</b>	Accurate people and vehicle counting, even in dense scenes
<b>Event Rules</b>	Intrusion detection, Tamper detection, Enter & exit filters, Appear & disappear filters, Stopping filter, Dwell filter, Direction filter, Counting, Abandoned object filter, Removed object filter, Zones & lines, Speed filter, 3D calibration, Tailgating filter, Logical rules
<b>Deep Learning People Tracking</b>	Deep learning people tracker for highly accurate detection, classification and localisation of people. Optimised for business intelligence and metadata generation.

#### SUPPORTED INTERFACES

<b>Video Input Method</b>	RTSP, Files (avi, mp4, mpg)
<b>Output Data Format</b>	Events(TCP, HTTP, SMTP, VMS / NVR / PSIM Client) Metadata (JSON)
<b>Web Interface</b>	HTML5 via embedded web server, No plugins necessary
<b>API</b>	RESTful API for 3rd party integration and customization