VAST
Professional Video/
Central Management Software

VIVOTEK's VAST is an intuitive professional video/central management software designed for managing all VIVOTEK IP surveillance products. It integrates next generation H.265 video codec and supports hundreds of cameras and stations in a hierarchical system structure for monitoring, recording, playback and event trigger management with effortless control. Furthermore, VAST offers the video wall solution, VAST Matrix, for hundreds of live view camera monitoring.

VAST expertly integrates with VIVOTEK's network cameras to provide the most expansive solutions and applications in video surveillance. Seamless recording with cameras for uninterrupted video recording, Panoramic PTZ for 360° seamless surveillance and VCA metadata Integration like Line Crossing Detection, Loitering Detection, Field Detection and People Counting Reports are among the highlights of this integration. At the system level, VAST supports failover redundancy to avoid single points of failure and ensures maximum system up time. It also supports setup of the VAST server on a virtual machine by using one powerful physical server running multiple VASTs on it. VAST performs remote management with the full range of the server & client structures and constitutes a robust system for various applications, such as Retail, Residential and Industrial.
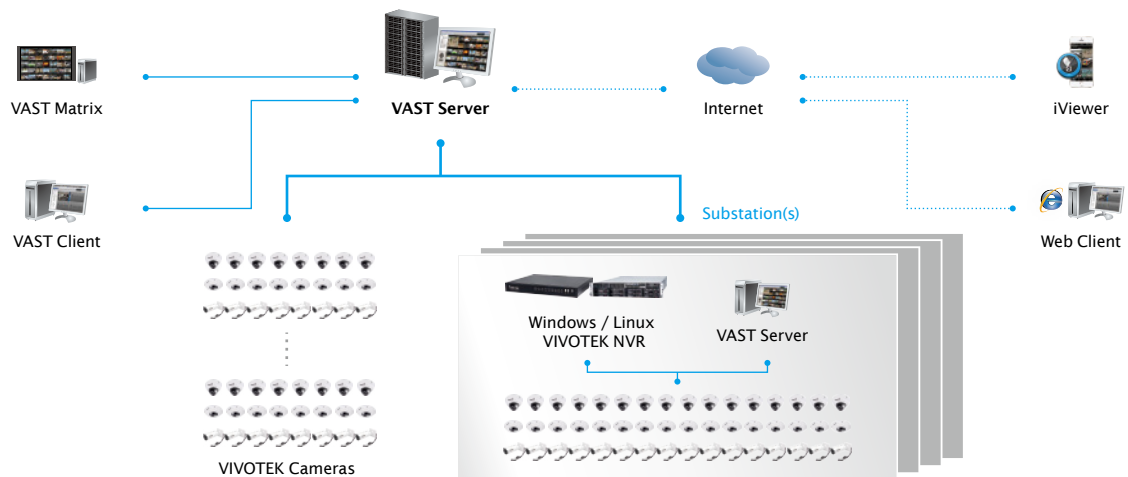
New Feature in Version 1.13

· Failover Redundancy
· Virtual Machine Supported
· RTSP Streaming Recording

· Joystick Enhancement
· ONVIF Event Support in Alarm Management

Key Features

· 128-channel Live Video Monitoring with Dual Monitors
· 16-channel Synchronous Playback
· Video Wall Solution "VAST Matrix" for Unlimited Live Views
· Auto Stream Size for Reducing Display Loading (Live-Client/Matrix)
· Instant Replay & Playback on Live Client
· Intelligent Alarm Management and Acknowledgement
· Overall Device Management through Intuitive E-map Feature

· Multiple Fisheye Dewarp Support
· Web Access via Internet Explorer
· Logical Tree Management
· Windows Active Directory Integration
· VIVOTEK Exclusive Feature: Panoramic PTZ, Seamless Recording and VCA Counting Solution
· Failover Solution
· Virtual Machine Solution

VAST Structure

VAST Matrix — VAST Server — Internet — iViewer

VAST Client

VIVOTEK Cameras

Substation(s)

Windows / Linux VIVOTEK NVR — VAST Server

Web Client

Support List

- VIVOTEK Network Cameras: 7000 & 8000 & 9000 Series (MD7560X excluded)
- VIVOTEK NVR: NR & ND Series

- VIVOTEK Software: ST7501, VAST
- VIVOTEK Switch: VivoCam PoE Switch (AW-GEV Series)

System Requirements

VAST Server

Server (Recording Channels)	Up to 64 Channels	Up to 128 Channels	Up to 256 Channels
CPU	4th Generation Intel® Core™ i3 Processors or above		4th Generation Intel® Core™ i5 Processors or above
RAM	4 GB or above	8 GB or above	8 GB or above
Hard Drive (Enterprise Model Only) Suggestion	1 Volume Group*	2 Volume Group*	4 Volume Group*
Recording Throughput	1 Volume Group: 200 Mbps (Max.)**		
Network Interface Card	1000/100/10 Ethernet***		

* Volume group depends on total recording server throughput.
** Maximum number bitrate of cameras not to go over total recording throughput.
*** Please consider the throughput of viewing, recording and server's network.

VAST LiveView & Playback

Client (Display Channels)	H.264, 720P, 2Mbps for Each Channel*	8CH	16CH	32CH
	H.264, 1080P, 4Mbps for Each Channel**	6CH	10CH	18CH
	H.265, 1080P, 4Mbps for Each Channel	3CH	5CH	9CH
CPU		4th Generation Intel® Core™ i3 Processors	4th Generation Intel® Core™ i5 Processors	4th Generation Intel® Core™ i7 Processors
RAM		2 GB or above	4 GB or above	4 GB or above
Graphics Processing Unit (GPU)		Support Direct3D Acceleration with 1GB Video RAM		
Network Interface Card		1000/100/10 Ethernet		

* Display requirements of a 3MP fisheye camera is equal to a 720P camera.
** Display requirements of a 5MP fisheye camera is equal to a 1080P camera.
   If installing Server & Client in the same PC, overall loading of the PC will be evaluated.

Trial for 60 days

Technical Specifications

Version	1.13

General

Max. Number of Cameras*	Unlimited
Max. Number of Servers*	Unlimited
Max. Number of Clients	Unlimited
Support OS	Windows 10, 8, 7, Vista, XP Windows Server 2012, 2008, 2003, 2000
Support Web Browser	Internet Explorer 11/10/9
Mobile Support	iViewer (iOS/Android)
Virtual Matrix Support*	VAST Matrix
Devices Pack	.vdp File Update

*Please refer to System Requirements Page (http://www.vivotek.com/vast/#system)

LiveView (Local Display)

Max. Channel	128-Channel (with Dual Monitors)
Layout	Multi Layout Display: 1x1, 2x2, 1+5, 3x3, 1+12, 4x4, 5x5, 1+31, 8x8, 1P+2, 1P+6, 1P+8, 2V, 3V, 4V, 2V+3 Single Layout Display, Full Screen Display, Sequential Display, Layout Rotate
Stream Application	Stream Selection & Auto Stream Size
View Application	Drag & Drop Remote I/O Control PiP (Digital Zoom) Instant Replay De-interlace Video Display Mode (Aspect Ratio, Hide Borders, Keep Top/Down Borders)
Fisheye Dewarp Mode	Fisheye Display Mode: Regular: 1O, 1P, 1R, 1O3R, 4R Wall Mount: 1P2R, 1P3R Ceiling/Floor Mount: 2P, 4R Pro, 1O8R

Playback

Max. Channel	16 Channels
Layout	Multi Layout Display: 1x1, 2x2, 1+5, 3x3, 1+12, 4x4, 2V, 3V, 4V, 2V+3 Single Layout Display, Full Screen Display, Sequential Display
Playback Mode	Asynchronous & Synchronous
Playback Control	Play, Rewind, Pause, Stop, Next/Previous Video Start, Next/Previous Frame, 1/8X ~ 64X Speed Control, Bookmark
Search Mode	Browsing, Date & Time (Fast), Event, Bookmark, Alarm, Log, Timeline, Timeline Scale

Video

Video Format	MJPEG, MPEG4, H.264 AVC, H.264 SVC, H.265
Video Resolution	Up to 9 Megapixels
Video Enhancement	Basic Mode: Brightness, Contrast, Saturation, Hue Intelligent Mode: Defog, Rain, Snow, Fire/Smoke

Audio

Audio Format	G.711, G.726, AMR, AAC
Audio Capability	Two-way Audio
Audio Control	Mute, Broadcasting & Sound Play

Record

Recording Time (sec.)	Pre-Record: 3-15, Post-Record: 10-60
Recording Stream Type	Unicast
Recording Stream	Single/Multiple
Recording Mode	Continuous, Schedule, Manual, Event, Activity Adaptive Streaming
Recording Setting	Recycle (Unit: Size or Day)
Recording File Format	3GP
External Storage Recording	NAS (SMB & CIFS)

Alarm Management

Alarm Period (sec.)	Max. 30
Alarm Filter	Name, Time, Source, Event Type, State
Alarm Setting	LiveView Alarm Notification: Fixed & Popup Alert Sound
Schedule Type	Continuous, Schedule, Manual
Camera Event	Motion, DI/O, Video Lost/Restore, PIR, Tampering, Temperature, IR, PPTZ, Line Crossing Detection, Loitering Detection, Field Detection, Audio detection, SD Card life Expectancy Detection, Shock Detection, ONVIF Motion Event, ONVIF DI/O, ONVIF Video Lost/Restore
Camera Status	Connection Status, Recording Status, Recording Error
Substation	Substation Connection Status, Substation DI/DO Trigger* * Support for VIVOTEK's ND Series NVR
Storage Status	Storage Connection Status, Storage Capacity Status
Station Status	License Status, Network Status, Virtual Memory Status
External Devices Event	DI/O (With I/O Box)
Action	Email, Start Recording, Move to preset location, Set DO, GSM Short Message, HTTP & Client notification
Alarm State for Management	New, Assigned, In Progress, Resolved, Closed, Later, Reject, Ignore
Alarm Result Export	.csv File

eMap

Source	Import Picture
Device	Camera, External DI/O, Substation camera, Substation DI/DO* * Support for VIVOTEK's ND Series NVR
Marked	Add, Remove, Direction Control, PTZ Control & Indicator LiveView
Event Notification	Event Icon Light Flash, Show Live Streaming on E-map

PTZ

PTZ/ePTZ Control	Panel Control & Mouse Click Control
PTZ/ePTZ Operation	Direction Control, Home, Zoom, Focus, Iris, Preset, Patrol (Group), Pan, Stop, Speed

Technical Specifications

PTZ Operation Mode	Click to Move & Continuous Move

Export

Print	Selection Windows & All Windows
Snapshot	BMP & JPEG
Export File	AVI, 3GP & EXE

Backup

Schedule	NAS (SMB & CIFS)

User Management

Authentication	Basic Account/Windows AD Account
User Level	Administrator, Power User, User, Operator & Guest
User Control	Permission, Accessible Cameras & Substations
User Login Time Limitation	By Time & By Day
User Login Schedule	Weekly Setting

System

Date & Time	Sync PC
Network	DDNS, SMTP, UPnP, Proxy, HTTPS
Multicast	Matrix Only
Language	Czech, English, Finnish, French, German, Italian, Japanese, Persian, Polish, Portuguese, Russian, Spanish, Simplified Chinese, Traditional Chinese

Device Integration

Joystick	VIVOTEK USB Joystick All Windows® Compatible USB Joystick
Switch	VIVOTEK AW-GEV Series (VivoCam PoE Switch)
I/O Box	Advantech ADAM-6000 Series, CHIYU CYT-133SC, Moxa I/O Box ioLogik E1210/E1211/E1212

Camera Integration

Camera Insert	Manual & Search
Video Source	VIVOTEK Cameras, ONVIF Cameras, RTSP URL

Basic Setting	User Name, Password & Camera Model Detection
Connection Setting	Configuration Protocol: HTTP, HTTPS Streaming Protocol: TCP, UDP, HTTP, HTTPS
Video Setting	Video Stream, Compression, Resolution, FPS, Video Quality
Audio Setting	Compression & Bitrate
Remote Focus	Manual Focus Adjustment & Full Range Scan
NTP Setting	IP Address (NTP Server or VAST Server) & Updating Interval
ONVIF Core Spec	Version 2.2 or above (by Project)
ONVIF Stream	Video (H.264, MPEG4 & MJPEG) & Audio (G.711, One Way)
ONVIF Control	PTZ Control (Up, Down, Left, Right & Zoom In/Out)
ONVIF Event	Motion Event, DI/DO, Video Lost/Restore
ONVIF Discovery	Discover the other brand camera through Insert Camera & Batch Insert

VCA Solution

VCA for Surveillance	Motion Detection, Line Crossing
VCA for Business Intelligence	People Counting
VCA Event	Line Crossing Detection, Loitering Detection, Field Detection

*Only Support VIVOTEK Cameras.

Advanced Features

VIVOTEK Exclusives	Panoramic PTZ Seamless Recording Standard VCA Integration (Line Crossing & Loitering & Field Detection) VCA Counting Solution
Failover Redundancy	Support N x M Structure* * Only Support VAST Server
Virtual Machine Support	VMware, Parallel, Virtual Box, Hyper-V (by Project)