



# VAST 2 Change the Way You Experience VMS



Smart Search II • OSM Transportation Integration • LPR Solution Integration • Cybersecurity Management Solution • Network Audio Solution

#### **New Features**

- Network Audio Solution Group broadcast and schedule broadcast
- Simplified License Key Activation
- LiveView Virtual Trigger

# **Key Features**

- Password Protected Video Clips
- Smart Search II People/Vehicle Search
- Multi Factor Authentication for Access Control
- Data Magnet Integration
- Video Content Analysis Integration
- System Overview Dashboard
- Matrix for Video Wall Solution
- Evidence Lock: Automatically Bookmark Related Recordings
- Evidence Export: Manually Export Video Recordings or Alarm Clips
- Multiple Fisheye Dewarp Modes
- Multi-Sensor Display Modes

## **Solutions**

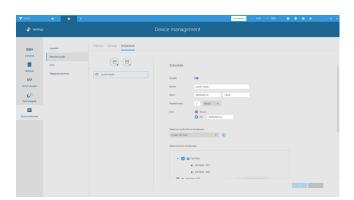
- License Plate Recognition Solution
- Cybersecurity Management Solution
- Transportation Solutions (License Required)
- CMS/Substations Failover Solutions (License Required)
- Transaction Solutions (License Required)
- Network Audio Solution (License Required)



## **What's New**

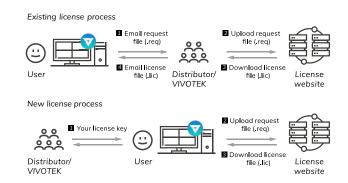
# Network Audio Solution -Group and Schedule Broadcast

Broadcast tailor made content in the right place, at the right time. Operators can coordinate multiple network audio speakers in the same group, enabling announcements to be delivered to their target audience in unison. Additionally, broadcasting schedules could also be managed. Plan and configure schedules with just a few clicks, and enjoy the benefits of automation.



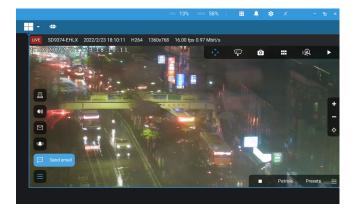
# **Simplified License Key Activation**

Streamline the licensing activation process with paired license key, which simplifies the procedure by automatically mapping credentials at both the installation and server ends. Input a purchased license key and VAST 2 will activate your license automatically over the internet. Faster, more convenient and intuitive.



# **LiveView Virtual Trigger**

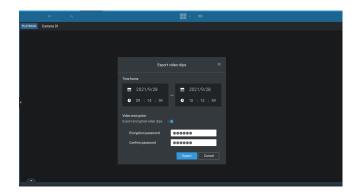
Users can now define and add a virtual trigger button (a hotkey that activates alarm actions) on their screens. When monitoring live videos, users can hit the virtual trigger button to execute defined actions (e.g., commanding cameras towards preset positions, adding bookmarks on the footage, playing audio warnings with network audio devices, sending HTTP Request to third party systems, and more.)





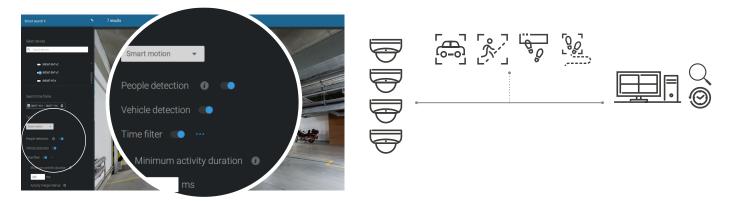
## **Password Protected Video Clips**

This feature supports encrypting videos by adding a customized password to secure the trail of evidence and protect video content from being viewed by unauthorized people. The encrypted video can only be played by the included standalone player with the required password.



# Smart Search II - People/Vehicle Search

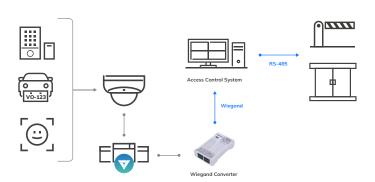
Users can quickly sort through large amounts of footage to find people and/or vehicle related motion in video recordings. People and vehicles appearing in the user-defined area can serve as search criteria. This provides for quicker search times and the video clips can then be exported.



#### **Multi-Factor Authentication for Access Control**

This feature combines multiple data magnet sources such as license plate recognition, face recognition, and access control reader information in VAST 2 as trigger sources. When these data sets are confirmed matches, it will trigger the access control system to open the gate/door/barrier.







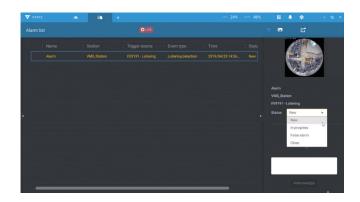
## **Data Magnet Integration**

Data Magnet enables VIVOTEK's License Plate Recognition cameras or third-party data sources to integrate into VAST 2, providing rapid access to recording data and supporting simultaneous data display during live streaming. Additionally, users can also utilize Data Magnet's alarm management to customize alarm triggering rules and actions, enabling users to receive alarm notifications immediately upon preset alarm criteria triggering.



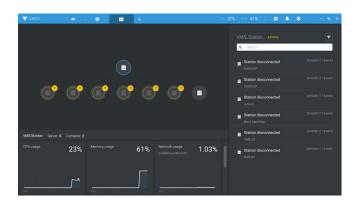
# **Video Content Analysis Integration**

Integrate Video Content Analysis Technology (Smart Motion Smart Motion Detection/Smart VCA/Parking Violation/Restricted Zone Detection) from VIVOTEK's cameras, making VAST 2 able to support display of VCA rules in liveview, bounding box on detected objects, alarm management and event-search functions. Provide improved accuracy for people and object detection, while reducing false alarms.



## System Overview Dashboard

Monitor the system status including CPU, memory, network usage and storage usage of VAST 2 servers. Review error reports from the notification bar. Easily check the system overview via the dashboard.



#### Matrix for Video Wall Solution

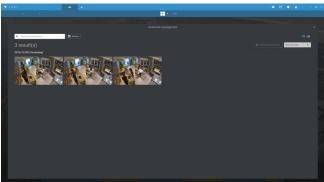
Matrix provides a video wall feature to view cameras streaming from a VAST 2 server. Users can manage the matrix client(s) directly through the VAST 2 server.



#### **Evidence Lock**

Automatically bookmark related recordings when alarm triggered or manually extend the retention time for video recording and manage a high number of investigation scenarios.



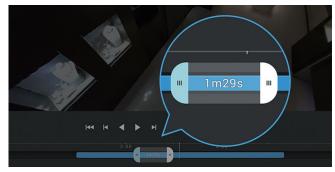


# **Evidence Export**

Easily export of multiple video recording with custom layouts in a specific time period or instant snapshot with a fast click.



Snapshot



Video

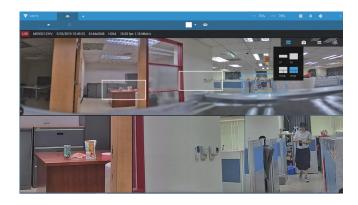
## **Multiple Fisheye Dewarp Modes**

VAST 2 provides multiple fisheye de-warp display modes for VIVOTEK Fisheye cameras, including 10, 1P, 1R, 103R, and 108R. By using different dewarp modes, users can monitor any angle, and enjoy precise detailed images for a total surveillance experience.



## **Multi-Sensor Display Modes**

To maximize the high-resolution characteristic of multisensor cameras, VAST 2 provides multiple display modes for VIVOTEK's multi-sensor cameras: 1P, 1R, 1P2R, 1P3R. It allows users to monitor video details in several fields of view simultaneously.

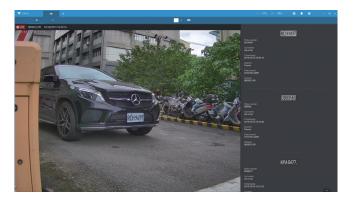




## **License Plate Recognition Solution**

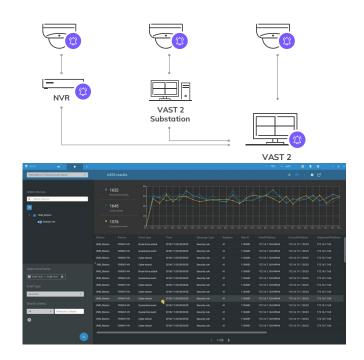
VAST 2 can link license plate information with live streaming and recordings via integration with VIVOTEK's License Plate Recognition cameras (such as IB9387-LPR). Users can search and analyze historical data and display the number of recognized license plates data in line graphs, export search results or display live streaming video data from alarm event-triggering cameras when license plate information matches preset alarm criteria.





# **Cybersecurity Management Solution**

Integrate cybersecurity attack events from VIVOTEK cameras and NVR to VAST 2 alarm management. In addition to alarm action and notification, VAST 2 becomes the central management site to recognize attack trends and status, as well as acquire attack information.



## **Transportation Solution**

VAST 2 can trace vehicles through information provided from GPS receivers, track vehicles' real-time location, and playback videos with recorded routes.

#### Support:

- GIS Maps: Google Maps, Open Street Map (OSM)
- User-Defined Maps Support
- Vehicle GPS Tracking

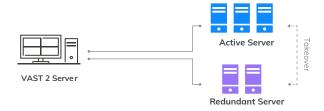




# **Solutions**

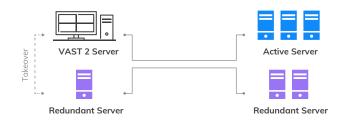
#### **Substations Failover Solution**

Reliable backup system designed to transfer recording tasks from N sites to M sites upon the rare occurrence of disk or other malfunction.



#### **CMS Failover Solution**

Provide 1+1 Redundancy for Central Management System. In case if CMS service becomes unavailable, recording and management tasks will be transferred from CMS to a CMS redundant server.



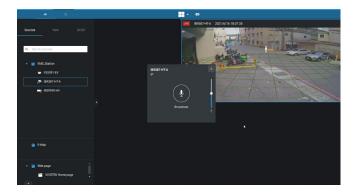
#### **Transaction Solution**

Retains all transaction details including not only POS data but also associated video footage to create deeper POS knowledge. Enter search conditions to filter transactions more easily.



#### **Network Audio Solution**

VIVOTEK Network Audio Solution integration with VAST 2, users can set specific video analytic detection events from integrated cameras and synchronize VIVOTEK audio devices via VAST 2. This can apply to many situations to improve property security. Restricted zones can automatically trigger recorded announcements or users can speak live directly, providing an intelligent surveillance solution that helps reduce management costs.





Series         Change the Wey You Experience VMS           Software         VAST 2           Version         2.13           General         Common Commo	Model	VAST 2	
Version 2.13  General  Auto Wizard Plug & Plug & Play Auto Sotup  Maximum Number of Cameras* 256  Maximum Number of Sorvors* 200  Maximum Number of Sorvors* 200  Maximum Number of Clients Unlimited Windows \$1, 10, 7 Windows \$1,	Series	Change the Way You Experience VMS	
Auto Wizard Plug & Play Auto Setup  Maximum Number of Camerias* 256  Maximum Number of Servers* 200  Maximum Number of Clients Unlimited  Supported OS Windows 11, 10, 7  Supported OS Windows 11, 10, 7  Supported Mobile App New or 7, 2772, 2015, 2019 (Server Core installation type is not supported) mackOS 1 lbg Sur (Client Only)  Virtual Matrix* Supported (VAST 2 Matrix)  Tabbed Browsing* Supported  Devices Pack Ver. 5, 3302  LiveView (Local Display)  Max. Channeler Park Monitor (the max. number of monitors supported depends on the capability of your system)  Layout Supported  Equal: 11, 12, 23, 33, 344, 555, 606, 737, 848 Pancaman. 1916, 27, 27-28, 389 Focus: 1112, 1116, 114, 115, 114, 117, 119, 27-8 Vortical: 1142, 24, 24, 34, 34, 47, 44, 47, 44, 47, 47, 47, 47, 47, 4	Software	VAST 2	
Auto Witzard Plug & Play Auto Setup  Maximum Number of Camerias* 256  Maximum Number of Servers* 200  Maximum Number of Clients Unlimited  Supported OS Windows 11, 10, 7 Windows Server 2012, 2016, 2019 (Server Core Installation type is not supported) macCs 11 8g Sur Client Orly)  Supported Mobile App (Mewer (IOS/Android)  Virtual Matrix* Supported (VAST 2 Matrix)  Tabbed Browsing* Supported  Devices Pack Ver. 5, 9.392  LiveView (Local Display)  Max. Channels* S4-channel per Monitor (the max. number of monitors supported depends on the capability of your system)  Layout Server 2012, 2013, 3, 344, 555, 565, 767, 888 Pancaman 1964, 297, 297, 38, 394, 44, 47, 474, 47, 474, 57 Single Layout display  Cuatom Layout Supported  Layout Supported  Custom Layout Supported  Supported  Multicasting of Live Streams  Supported  Multicasting of Live Streams  Supported  Layout Application  Stream Selection & Auto Streaming Size  Multicasting of Live Streams  Supported  Fisheye Dewarp Mode 10, 19, 18, 103R, 4R, 29, 4R Pro, 108R  Fisheye Auto-Pan Supported  Multi-Sensor Display Mode	Version	2.13	
Maximum Number of Cameras* 256  Maximum Number of Servers* 200  Maximum Number of Clients Unlimited  Supported OS Windows 11, 10, 7 Windows Server 2012, 2016, 2019 (Server Core installation type is not supported) macSO \$1 ling Sur (Client Only)  Supported Mobile App Viewer (OS/Android) Virtual Matrix* Supported (VAST 2 Matrix)  Tabbad Browsing* Supported (VAST 2 Matrix)  Devices Pack Ver. 5.9.392  LiveView (Local Display)  Max. Channels* Selection Sele	General		
Maximum Number of Servers*  200  Maximum Number of Clients  Unlimited  Supported OS  Windows 11, 10, 7 Windows Server 2012, 2016, 2019 (Server Core installation type is not supported) macSCS 11 fig. Sur (Client Only)  Supported Mobile App  Visioner (OS/Android)  Virtual Matrix* Supported (VAST 2 Matrix)  Tabbed Browsing* Supported  Ver. 5.9.392  LiveView (Local Display)  Max. Channels*  64-channel per Monitor (the max. number of monitors supported depends on the capability of your system)  Layout  64-channel per Monitor (the max. number of monitors supported depends on the capability of your system)  Layout  Custom Layout  Layout  Supported  Supported  Supported  Supported  Custom Layout Supported  Supported  Supported  Supported  Custom Layout Supported  Supported  Supported  Supported  Supported  Supported  Supported  Layout Configuration Saving Supported  Supported  Supported (Camera tour mode / Audio tour mode)  Stream Application  View Application  View Application  View Application  Layout  View Application  Just Stream Supported (Form Server to Client)  View Application  View Application  Just Stream Supported  Just Stream Supported  Just Stream Application  Nutriant Playback  Mediatal Display (VAC, POS and Data Magnet)  Fisheye Dewarp Mode  10, 1P, 1R, 10SR, 4R, 2P, 4R Pro, 10SR  Fisheye Dewarping  Multi-Sensor Display Mode  11, 1R, 1PZR, 1PZR, 1PZR, 1PZR	Auto Wizard	Plug & Play Auto Setup	
Maximum Number of Clients  Unlimited  Windows 11, 10, 7, Windows Server 2012, 2016, 2019 (Server Core installation type is not supported) macos? If Big Sur (Client Only)  Supported Mobile App  Niewer (OS/Android)  Virtual Matrix* Supported (VAST 2 Matrix)  Tabbed Browsing* Supported  Devices Pack Ver. 5.9.392  LiveView (Local Display)  Max. Channels* S4-channel per Monitor (the max. number of monitors supported depends on the capability of your system)  Faular 1s1, 2x2, 3x3, 4x4, 5x5, 6x6, 7x7, 8x8 Pancaram: PP-6, 2P, 2P-93, 3P Pous: 1s12, 1s1, 1s1, 1s1, 1s1, 1s2, 1s2, 2s3, 3x4, 4x4, 4x4, 4x4, 4x4, 4x4, 4x4, 4x	Maximum Number of Cameras*	256	
Supported OS Windows 11, 10, 7 Windows Server 2012, 2016, 2019 (Server Core installation type is not supported) macOS 11 Big Sur (Client Cnly)  Supported Mobile App Viewer (IOS/Android)  Virtual Matrix* Supported (VAST 2 Matrix)  Tabbed Browsing* Supported  Devices Pack Ver. 5.9.392  LiveView (Local Display)  Max. Channels* S4-channel per Monitor (the max. number of monitors supported depends on the capability of your system)  Layout Server Serve	Maximum Number of Servers*	200	
Supported OS  Windows Server 2012, 2016, 2019 (Server Core installation type is not supported) marked Mobile App  N/iewer (IOS/Android)  Virtual Matrix* Supported (VAST 2 Matrix)  Tabbed Browsing* Supported  Ver. 5.9.392  LiveView (Local Display)  Max. Channels* S4-channel per Monitor (the max. number of monitors supported depends on the capability of your system)  Equal: tx1, 2x2, 3x3, 4x4, 5x5, 6x6, 7x7, 8x8 Panorama: 1P+6, 2P, 2P+3, 3P Panorama: 1P+6, 2P, 2P+3, 3P Panorama: 1P+6, 2P, 2P+3, 3P Single Layout Configuration Saving  Supported  Layout Configuration Saving Supported  Tour Supported (Camera tour mode / Audio tour mode)  Stream Application Stream Selection & Auto Streaming Size  Multicasting of Live Streams Supported (from Server to Client)  E-Map Embedded Drag & Drop Remote IVO Control PIP (Digital Zoom) Instant Playback Windows Supported (Aspect Ratio & Camera Information) Windows Supported  Fisheye Dewarp Mode  10, 1P, 1R, 192R, 4P, 2P, 4R Pro, 108R  Multi-Sensor Display Mode  19, 1R, 1P2R, 1P3R	Maximum Number of Clients	Unlimited	
Virtual Matrix*         Supported           Tabbed Browsing*         Supported           Devices Pack         Ver. 5.9.392           LiveView (Local Display)         Education of the max. number of monitors supported depends on the capability of your system)           Max. Channels*         64-channel per Monitor (the max. number of monitors supported depends on the capability of your system)           Layout         Equal: 1x1, 2x2, 3x3, 4x4, 5x5, 6x6, 7x7, 6x8           Panorians: 1P+6, 2P, 2P+3, 9x         Panorians: 1P+6, 2P, 2P+3, 9x           Layout Configuration Saving         Supported           Custom Layout         Supported           Layout Configuration Saving         Supported (Camera tour mode / Audio tour mode)           Stream Application         Stream Selection & Auto Streaming Size           Multicasting of Live Streams         Supported (from Server to Client)           View Application         E-Map Embedded Drag & Drag & Drop Remote I/O Control Pip (Digital Zoom) Instant Playback (Video Display Mode (Aspect Ratio & Camera Information) Metadata Display (VCA, POS and Data Magnet)           Fisheye Dewarp Mode         10, 1P, 1R, 103R, 4R, 2P, 4R Pro, 108R           Fisheye Dewarping         Supported           Multi-Sensor Display Mode         19, 1R, 1P2R, 1P3R	Supported OS	Windows Server 2012, 2016, 2019 (Server Core installation type is not supported)	
Tabbed Browsing* Supported  Ver. 5.9.392  LiveView (Local Display)  Max. Channels* 64-channel per Monitor (the max. number of monitors supported depends on the capability of your system)  Layout Equal: 1x1, 2x2, 3x3, 4x4, 5x5, 6x6, 7x7, 8x8 Panorama: 1P+6, 2P; 2P+3, 3P Verticai: 1v4-6, 2V+2, 2v+3, 3V, 3V+4, 4V, 4V+4, 5V Single Layout display  Custom Layout Supported  Layout Configuration Saving Supported  Supported (Camera tour mode / Audio tour mode)  Stream Application Stream Application Stream Selection & Auto Streaming Size  Multicasting of Live Streams Supported (from Server to Client)  View Application View Application View Application Supported (From Server to Client)  E-Map Embedded Drag & Drop Remote I/O Control Pry (Digital Zoom) Instant Playback Video Display Mode (Aspect Ratio & Camera information) Metadata Display (VCA, POS and Data Magnet) Remote Focus Fisheye Dewarp Mode 10, 1P, 1R, 103R, 4R, 2P, 4R Pro, 108R  Fisheye Dewarp Mode 10, 1P, 1R, 103R, 4R, 2P, 4R Pro, 108R  Third-Party Fisheye Dewarping Multi-Sensor Display Mode 1P, 1R, 1P2R, 1P3R	Supported Mobile App	iViewer (iOS/Android)	
Devices Pack  Ver. 5.9.392  LiveView (Local Display)  Max. Channels*  64-channel per Monitor (the max. number of monitors supported depends on the capability of your system)  Equal: 1x1, 2x2, 3x3, 4x4, 5x5, 6x6, 7x7, 8x8  Pancrama: 1P+6, 2P, 2P+3, 3P Focus: 1+12, 1+16, 1+3, 1+5, 1+7, 1+9, 2+9 Focus: 1+12, 1+16, 1+3, 1+17, 1+	Virtual Matrix*	Supported (VAST 2 Matrix)	
LiveView (Local Display)  Max. Channels*  64-channel per Monitor (the max. number of monitors supported depends on the capability of your system)  Equal: 1x1, 2x2, 3x3, 4x4, 5x5, 6x6, 7x7, 8x8 Panorama: 1P+6, 2P, 2P+3, 3P Panorama: 1P+6, 2P, 2P+3,	Tabbed Browsing*	Supported	
Max. Channels*  64-channel per Monitor (the max. number of monitors supported depends on the capability of your system)  Equal: 1x1, 2x2, 3x3, 4x4, 5x5, 6x6, 7x7, 8x8 Panorama: 1P+6, 2P, 2P+3, 3P Poous: 1+12, 1+16, 1+3, 1+5, 1+7, 1+9, 2+8 Vertical: 1Y+6, 2V+2, 2V+3, 3V, 3V+4, 4V, 4V+4, 5V Single Layout display  Custom Layout  Layout Configuration Saving  Supported  Tour  Supported (Camera tour mode / Audio tour mode)  Stream Application  Stream Application  Stream Selection & Auto Streaming Size  Multicasting of Live Streams  Supported (from Server to Client)  Layout Configuration Saving  Supported (from Server to Client)  View Application  View Application  View Application  Stream Selection & Auto Streaming Size  1-Map Embedded Drag & Drop Remote I/O Control PIP (Digital Zoom) Instant Playback Video Display Mode (Aspect Ratio & Camera information) Metadata Display (VCA, POS and Data Magnet)  Fisheye Dewarp Mode  10, 1P, 1R, 103R, 4R, 2P, 4R Pro, 108R  Fisheye Auto-Pan  Supported  Multi-Sensor Display Mode  1P, 1R, 1P2R, 1P3R	Devices Pack	Ver. 5.9.392	
Layout Equal: 1x1, 2x2, 3x3, 4x4, 5x5, 6x6, 7x7, 8x8 Panorama: 1P+6, 2P, 2P+3, 3P Focus: 1+12, 1+16, 1+3, 1+5, 1+7, 1+9, 2+8 Verticat: 1V+6, 2P+2, 2V+3, 3V, 3V+4, 4V, 4V+4, 5V Single Layout display  Custom Layout  Supported  Layout Configuration Saving Supported  Supported (Camera tour mode / Audio tour mode)  Stream Application Stream Selection & Auto Streaming Size  Multicasting of Live Streams Supported (from Server to Client)  View Application  View Application  View Application  View Application  Jordan Selection & Auto Streaming Size  E-Map Embedded Drag & Drop Remote I/O Control PiP (Digital Zoom) Instant Playback Video Display Mode (Aspect Ratio & Camera information) Metadata Display (VCA, POS and Data Magnet)  Fisheye Dewarp Mode  Jordan Supported  Multi-Sensor Display Mode  1P, 1R, 193R, 4R, 2P, 4R Pro, 108R  Multi-Sensor Display Mode  1P, 1R, 1P2R, 1P3R	LiveView (Local Display)		
Layout Pancrama: 1P+6, 2P, 2P+3, 3P Focus: 1+12, 1+16, 1+3, 1+5, 1+7, 1+9, 2+8 Verticat: 1V+6, 2V+2, 2V+3, 3V, 3V+4, 4V, 4V+4, 5V Single Layout display  Custom Layout Supported  Layout Configuration Saving Supported  Tour Supported (Camera tour mode / Audio tour mode)  Stream Application Streams Selection & Auto Streaming Size  Multicasting of Live Streams Supported (from Server to Client)  View Application E-Map Embedded Drag & Drop Remote I/O Control PIP (Digital Zoom) Instant Playback Video Display Mode (Aspect Ratio & Camera information) Metadata Display (VCA, POS and Data Magnet) Remote Focus  Fisheye Dewarp Mode 10, 1P, 1R, 103R, 4R, 2P, 4R Pro, 108R  Fisheye Auto-Pan Supported  Multi-Sensor Display Mode 1P, 1R, 1P2R, 1P3R	Max. Channels*		
Layout Configuration Saving  Tour  Supported (Camera tour mode / Audio tour mode)  Stream Application  Stream Selection & Auto Streaming Size  Multicasting of Live Streams  Supported (from Server to Client)  E-Map Embedded Drag & Drop Remote I/O Control Pip (Digital Zoom) Instant Playback Video Display Mode (Aspect Ratio & Camera information) Metadata Display (VCA, POS and Data Magnet)  Fisheye Dewarp Mode  10, 1P, 1R, 103R, 4R, 2P, 4R Pro, 108R  Fisheye Auto-Pan  Supported  Multi-Sensor Display Mode  1P, 1R, 1P2R, 1P3R	Layout	Panorama: 1P+6, 2P, 2P+3, 3P Focus: 1+12, 1+16, 1+3, 1+5, 1+7, 1+9, 2+8 Vertical: 1V+6, 2V+2, 2V+3, 3V, 3V+4, 4V, 4V+4, 5V	
Tour Supported (Camera tour mode / Audio tour mode)  Stream Application Stream Selection & Auto Streaming Size  Multicasting of Live Streams Supported (from Server to Client)  E-Map Embedded Drag & Drop Remote I/O Control PiP (Digital Zoom) Instant Playback Video Display Mode (Aspect Ratio & Camera information) Metadata Display (VCA, POS and Data Magnet)  Fisheye Dewarp Mode 10, 1P, 1R, 103R, 4R, 2P, 4R Pro, 108R  Fisheye Auto-Pan Supported  Third-Party Fisheye Dewarping Supported  Multi-Sensor Display Mode 1P, 1R, 1P2R, 1P3R	Custom Layout	Supported	
Stream Application  Stream Selection & Auto Streaming Size  Multicasting of Live Streams  Supported (from Server to Client)  E-Map Embedded Drag & Drop Remote I/O Control PIP (Digital Zoom) Instant Playback Video Display Mode (Aspect Ratio & Camera information) Metadata Display (VCA, POS and Data Magnet) Remote Focus  Fisheye Dewarp Mode  10, 1P, 1R, 103R, 4R, 2P, 4R Pro, 108R  Fisheye Auto-Pan  Supported  Third-Party Fisheye Dewarping  Supported  Multi-Sensor Display Mode  1P, 1R, 1P2R, 1P3R	Layout Configuration Saving	Supported	
Multicasting of Live Streams  Supported (from Server to Client)  E-Map Embedded Drag & Drop Remote I/O Control PIP (Digital Zoom) Instant Playback Video Display Mode (Aspect Ratio & Camera information) Metadata Display (VCA, POS and Data Magnet) Remote Focus  Fisheye Dewarp Mode  10, 1P, 1R, 103R, 4R, 2P, 4R Pro, 108R  Fisheye Auto-Pan  Supported  Third-Party Fisheye Dewarping  Supported  Multi-Sensor Display Mode  1P, 1R, 1P2R, 1P3R	Tour	Supported (Camera tour mode / Audio tour mode)	
View Application  E-Map Embedded Drag & Drop Remote I/O Control PIP (Digital Zoom) Instant Playback Video Display Mode (Aspect Ratio & Camera information) Metadata Display (VCA, POS and Data Magnet) Remote Focus  Fisheye Dewarp Mode  10, 1P, 1R, 103R, 4R, 2P, 4R Pro, 108R  Fisheye Auto-Pan  Supported  Third-Party Fisheye Dewarping  Supported  Multi-Sensor Display Mode  1P, 1R, 1P2R, 1P3R	Stream Application	Stream Selection & Auto Streaming Size	
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Fisheye Auto-Pan Supported  Third-Party Fisheye Dewarping Supported  Multi-Sensor Display Mode 1P, 1R, 1P2R, 1P3R	View Application	Drag & Drop Remote I/O Control PIP (Digital Zoom) Instant Playback Video Display Mode (Aspect Ratio & Camera information) Metadata Display (VCA, POS and Data Magnet)	
Third-Party Fisheye Dewarping Supported  Multi-Sensor Display Mode 1P, 1R, 1P2R, 1P3R	Fisheye Dewarp Mode	10, 1P, 1R, 103R, 4R, 2P, 4R Pro, 108R	
Multi-Sensor Display Mode 1P, 1R, 1P2R, 1P3R	Fisheye Auto-Pan	Supported	
	Third-Party Fisheye Dewarping	Supported	
Display Watermark Supported	Multi-Sensor Display Mode	1P, 1R, 1P2R, 1P3R	
	Display Watermark	Supported	



Playback			
Max. Channels*	64-channel per Monitor (the max. number of monitors supported depends on the decoding capability of your system)		
Layout	Equal: 1x1, 2x2, 3x3, 4x4, 5x5, 6x6, 7x7, 8x8  Panorama: 1P+6, 2P, 2P+3, 3P  Focus: 1+12, 1+16, 1+3, 1+5, 1+7, 1+9, 2+8  Vertical: 1V+6, 2V+2, 2V+3, 3V, 3V+4, 4V, 4V+4, 5V  Single Layout Display		
Custom Layout	Supported		
Playback Mode	Asynchronous & Synchronous		
Playback Control	Play, Rewind, Pause, Stop, Next/Previous Frame, 1/64X ~ 64X Speed Control, Bookmark		
Playback Timeline	Scale Adjustment Event Timeline Interval Display		
Search Mode	Calendar, Event, Alarm, Bookmark, Thumbnail, Smart Search II, Transaction (POS), Data Magnet Log		
Evidence Lock	Supported		
Display Watermark	Supported		
Video			
Video Format	MJPEG, MPEG4, H.264 AVC, H.264 SVC, H.265		
Video Resolution	Up to 12 Megapixels		
Audio			
Audio Format	G.711, G.726, AMR, AAC		
Audio Capability	Two-Way Audio		
Audio Control	Mute		
Record			
Additional Recording Time for Event Recording (sec.)	Pre-Record: 3-15, Post-Record: 10-60		
Recording Stream Type	Unicast		
Recording Stream	Single		
Max. Number of Recording Channels	256 Channels per Recording Group (Please refer to system requirement when designing your surveillance deployments.)		
Recording Mode	Continuous, Event, Customized Schedule, Activity Adaptive Streaming		
Recycle Options	Recycling time depends on the remaining storage space or the set number of days		
Recording File Format	3 GP		
External Storage Recording	NAS (SMB/CIFS), iSCSI		
Alarm Management			
Alarm Period (sec.)	Max. 30		
Alarm Filter	Time, Trigger Type (Camera/Substation/System), Status, Name, Trigger Source		
Alarm Setting	Realtime System Notification (Enable/Disable/Disable for a time period)		



Schedule Type	Continuous, Schedule		
Camera Event	General: Motion detection, Camera DI, Camera DO, IR (Infrared), PIR (Passive infrared), Tampering Detection, Temperature, Camera Disconnected, Recording Error, Stop Recording, Video Loss (Video server only), SD Card Life Expectancy Detection, Audio Detection, Shock Detection  Video Content Analysis: Intrusion Detection, Loitering Detection, Line Crossing Detection, Unattended Object Detection, Missing Object Detection, Face Detection, Crowd Detection, Zone Detection, Smart Tracking, Running Detection, Parking Violation Detection, Restricted Zone Detection  Trend Micro IoT Security: Brute Force Attack, Cyberattack, Quarantine Event		
System Event	NV Series NVR: Abnormal G-sensor Motion, Speeding, GPS Disconnected, Storage Failure, Storage Full, Netword Disconnected ND Series NVR: Fan Status, Network Disconnected, Storage Failure, Storage Full, Brute Force Attack, Cyber Attack, Quarantine Event NR Series NVR: Network Disconnected, Storage Failure, Storage Full Counting Camera: Number of Remaining People (Require appropriate configuration on the counting camera and VCA Report)		
External Devices Event	DI/DO Device DI, DI/DO Device DO, TCP Message, Data Magnet, Virtual Trigger		
Action	Start to record videos, Set DO status, Go to camera presets, Send HTTP requests (GET and POST method), Send live streaming, Send email with snapshot of assigned camera(s), Go to E-Map, Sound the alarm and Add bookmark, Play audio file with network audio device		
Alarm Result Display	List View, Thumbnail View; Group Mode		
Alarm Status	New, In Progress, False alarm and Close		
Alarm Result Export	.csv / .3gp file		
Additional Time for Exported Alarm Clip (min.)	Pre-Triggered: 1~10; Post-Triggered: 1~60		
Data Magnet			
Data Source Type	VIVOTEK License Plate Recognition, Third-party data source, POS Machine, Access Control		
Data Display	Separate data section or data overlay on screen		
Display Support	LiveView, Playback		
Timeout for Data Overlay	Supported		
Highlight Keyword or Value	Supported (case insensitive)		
Search Result Display	List View, Chart View		
Search Result Export	.csv / .png file		
еМар			
Source	Import Picture & Folder		
Supported Image Format	BMP, GIF, JPG, PNG, SVG		
Supported Items	Camera, Camera DI/DO, DI/DO Device (includes NVR DI/DO), Regional map		
Adjustment	Vertical Angle Adjustment		
Marked	Add, Remove, Direction Control, PTZ Control, FOV Control, LiveView & Playback		
Event Notification	One or more Live Streaming		



PTZ	
PTZ Control	Mouse Draw & Drag Control
PTZ Operation	Direction Control, Home, Zoom, Focus, Preset, Patrol (Group), Tracking, Pan, Stop, Speed
PTZ Operation Mode	Click to Move & Continuous Move
Track Mode	Smart Tracking, Auto Tracking
Automatically Enable Smart Tracking	Supported (when camera idles)
Wiper Blade Control	Supported
Export	
Snapshot	PNG & JPEG
Export File	3GP & EXE
Display Watermark	Supported
Digital Watermark	Supported
Export File Encryption	Supported
Player	
Layout	Single & Multiple Layout Display
Custom Layout	According to playback export layout configuration
Drag to Play	Supported (VIVOTEK 3GP & MP4 files)
Playlist	Drag & drop, Play selected videos, Play all videos, Delete selected videos, Delete all videos
Playback Mode	Asynchronous & Synchronous
Playback Control	Play, Rewind, Pause, Stop, Next/Previous Frame, 1/64X ~ 64X Speed Control
Playback Timeline	Scale Adjustment Event Timeline Interval Display
Snapshot	PNG & JPEG Snapshot for Dewarped Fisheye Camera
Export Video	3GP
Backup	
External Storage Backup	NAS (SMB/CIFS), iSCSI
User Management	
Authentication	Basic Account/Windows AD Account
User Level	Administrator, Customized User
User Control	Client Permission (Operation & Configuration) & Camera Permission
System	
Dashboard	Supported
System Error List	Supported



Server System Status Display	CPU/Memory/Network/Storage	
Client System Status Display	CPU/Memory	
Date & Time	Sync PC	
Network	SMTP & HTTPS	
Language	English, Portuguese, Czech, Spanish, Japanese, German, French, Italian, Simplified Chinese, Traditional Chinese, Russian, Korean, Persian, Thai, Arabic, Polish, Vietnamese, Turkish	
Diagnostic Service	Supported	
Log Management	Supported	
macOS Client	Supported* * Limitations of macOS Client:  1. Video can only be exported in 3GP format.  2. AD login cannot be setup in macOS client.  3. macOS client only supports the joystick AJ-001.  4. macOS client only supports one-way audio.  5. Does not support standalone player  6. Does not support third-party fisheye dewarping	
Device Integration		
VIVOTEK's Camera	8000 & 9000 Series	
VIVOTEK's NVR	ND & NR & NV Series (ND8321 excluded)	
VIVOTEK's Software	VAST 2	
Joystick	VIVOTEK Joystick AJ002	
I/O Box	Advantech ADAM-6000 Series Chiyu CYT-133SC MOXA ioLogik E1210, E1211, E1212, and E1214	
POS (License Required)	POSNET Lafresh Allsense (Implement in NVR, Searchable in VAST 2) Gulfcoast ARCH	
Access Control	Chiyu CSS-R11 (Expanded by CSS-A11) SOYAL AR-837 Series ZKTeco SpeedFace-V4L	
Network Audio Device	VIVOTEK AU-001, AU-002	
Wiegand Converter	VIVOTEK AO-20W	
Camera Integration		
Camera Insert	Manual & Search	
Refresh Devices	Manual	
Video Source	VIVOTEK, ONVIF & RTSP Streaming	
Basic Setting	User Name, Password & Camera Model Detection	
Connection Setting	Configuration Protocol: HTTP, HTTPS Streaming Protocol: TCP, UDP, HTTP, HTTPS	
Video Setting	Video Stream, Codec, Resolution, Maximum frame rate, I-frame period, Video quality, FPS, Maximum bit rate	
Image Setting	Timestamp, Video title, Video orientation, Mount type (fisheye only), Color, Power line-frequency	



Motion Detection Setting	Supported	
ONVIF Profile	Profile S	
ONVIF Stream	Video (H.264, MPEG4 & MJPEG) & One-Way Audio (G.711, G726 & AAC)	
ONVIF Control	PTZ Control (Up, Down, Left, Right & Zoom In/Out)	
ONVIF Discovery	Supported	
ONVIF Event	Motion Event, Camera DI, Camera DO, Video Lost (Video server only)	
VCA Solution		
Security Intelligence	Line Crossing Detection, Loitering Detection, Intrusion Detection, Face Detection, Missing Object Detection, Unattended Object Detection, Crowd Detection, Smart Tracking, Running Detection, Parking Violation Detection, Restricted Zone Detection	
Business Intelligence	People Counting, Zone Detection	
Advanced Features		
VIVOTEK Exclusives	Panoramic PTZ Seamless Recording Activity Adaptive Stream VCA Counting Report Smart Search II VIVOTEK VCA (Video Content Analysis) Cybersecurity Management Solution License Plate Recognition Solution Smart Tracking	
License Required Feature**		
Substations Failover Solution	N x M System Structure	
CMS Failover Solution	1+1 Redundancy	
Third-Party Integration	TCP Message, Data Magnet	
Transportation Solution	GIS Maps: Google Map & Open Street Map (OSM) User-Defined Maps Vehicle GPS Tracking Tracks Playback	
Transaction Solution	POS Terminal Integration (Serial or Network Ports) Live Printing of Transactional Data Transaction Corresponding Video Search	
Network Audio Solution	Trigger recorded announcements; Speak live directly; Group broadcast; Schedule broadcast	

<sup>\*</sup> Please refer to System Requirements Page (http://www.vivotek.com/vast2/#system)
\* Maximum number of cameras is 128 when SmartVCA is enabled
\*\* Advanced license is required. (Additional charges may apply)



# **System Requirements**

#### VAST 2 Server

Operating System	Windows 11, 10, 7 Windows Server 2019, 2016, 2012 (Server Core installation type is not supported)		
Server	Up to 64-CH	Up to 128-CH	Up to 256-CH**
Desktop CPU	6 <sup>th</sup> Generation Intel <sup>®</sup> Core™ i3 Processors or above		6 <sup>th</sup> Generation Intel <sup>®</sup> Core <sup>™</sup> 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*
Network Interface Card	Ethernet, 1Gbit recommended***		

[Note] The camera settings in the above table are testing by H.264, 1080P, CBR, 3Mbps for each channel; the actual situation depends on the users' system status.

#### VAST 2 LiveView & Playback

Operating System		Windows 11, 10, 7 Windows Server 2019, 2016, 2012 (Server Core installation type is not supported) * macOS 11 Big Sur		n type is not supported) *
	H.264, 720P, 2Mbps for Each Channel**	8-CH	16-CH	32-CH
Client (Display Channels)	H.264, 1080P, 4Mbps for Each Channel***	6-CH	10-CH	18-CH
	H.265, 1080P, 4Mbps for Each Channel	3-CH	5-CH	9-CH
Desktop CPU		6 <sup>th</sup> Generation Intel <sup>®</sup> Core <sup>™</sup> i3 Processors	6 <sup>th</sup> Generation Intel <sup>®</sup> Core <sup>™</sup> i5 Processors	6 <sup>th</sup> Generation Intel <sup>®</sup> Core™ i7 Processors
RAM****		8 GB or above	8 GB or above	16 GB or above
Graphics Card****		1GB RAM, with Direct3D acceleration		
Network Interface Card		Ethernet, 1Gbit recommended		

<sup>\*</sup> Independent graphics card is necessary when using Windows Server OS.

If you plan to install both VAST 2 Server & Client on the same PC, please remember to consider the combined loading when evaluating system requirements.



<sup>\*</sup> The size of the volume group depends on the total recording server throughput.

\* Throughput of each volume group must exceed the total bitrate of cameras recorded in that specific volume group.

\*\* 256-CH without SmartVCA, 128-CH with SmartVCA enabled.

<sup>\*\*\*</sup> Please consider the throughput of viewing, recording and server's network bandwidth when designing your surveillance deployments.

<sup>\*\*\*\*</sup> Please use a dual-channel memory configuration.

<sup>\*\*</sup> Display requirements of a 3MP fisheye camera is equal to a 720P camera.

<sup>\*\*\*</sup> Display requirements of a 5MP fisheye camera is equal to a 120° camera.

\*\*\* Display requirements of a 5MP fisheye camera is equal to a 1080° camera.

\*\*\*\* Please use a dual-channel memory configuration.

\*\*\*\*\*\* Please update to the latest GPU driver.

<sup>\* 60-</sup>day trial includes 256-channel camera license and all advanced license features.