

# The VIAAS Advantage

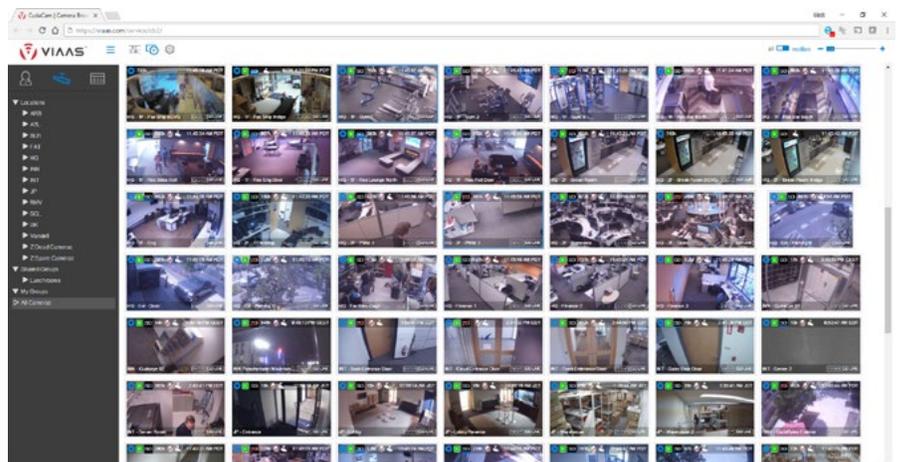
An Ideal Solution for Effective Monitoring of Many Surveillance Cameras

## Background

Customers with large surveillance camera deployments face significant challenges, which include:

- Ability to effectively monitor multiple cameras at once.
  - Human limitations: People cannot effectively monitor many cameras at once.
  - Display space and size limitations: More cameras require larger monitors.
- Space limitations: Large monitors require large desks and/or wall space.
- Infrastructure cost and complexity
  - Video processing server(s)
  - Video management software (VMS)
  - High throughput local and wide area networks (LAN/WAN)
- Bandwidth Demand

The example here displays 42 cameras (and 7 half images) displayed on a 23" LCD monitor using 1080p resolution (1920x1080 pixels). Each image is approximately 1.5" x 3" in size. A larger monitor, or multiple large panel displays, would allow larger camera views and/or more cameras to be displayed. Neither will overcome the human limitations when monitoring large camera groups.



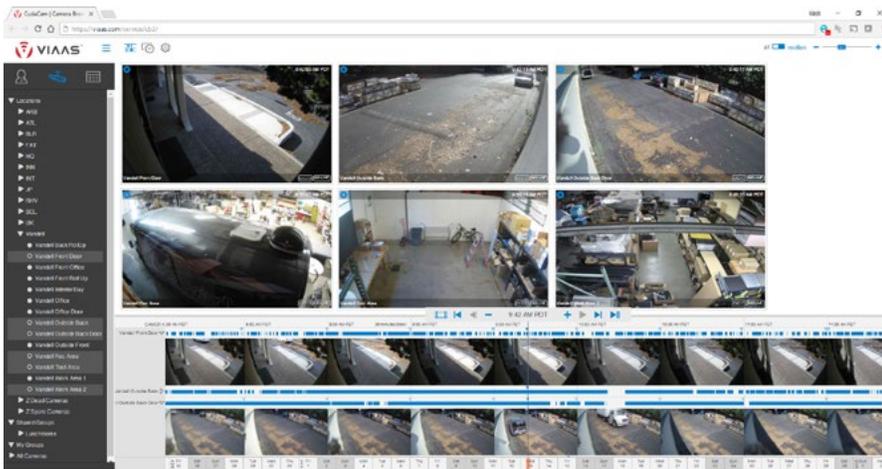
## Overcoming Human Limitations

VIAAS effectively addresses each of these challenges. Technology has evolved in the surveillance field enabling more effective monitoring, navigation, response, and event retention. Traditional CCTV systems streamed non-stop live video over coaxial cable to a monitoring station and recording device, typically a DVR. The approach delivered hours of video with no events and often required tedious playback of video to isolate the important segment.

VIAAS uses intelligent motion detection to send only events of interest. Each video is accompanied by high resolution JPG images and thumbnail images that make navigation and identification very efficient. The VIAAS Now Panel allows many

cameras to be displayed but can be set to only update the image when there is motion in the scene. This approach draws attention of the viewer to the camera(s) that have activity, providing a high state of situational awareness where needed. If the VIAAS user prefers, they can set the cameras to send updated images every 2-32 seconds, whether there is motion in the scene or not. This allows highly efficient monitoring with a fraction of the network demand of conventional systems. Of course, users can live stream video from any camera, or multiple cameras any time they want. The browser-based user interface allows each view to be sized individually based on the user's preference.

The VIAAS Timeline can be expanded to show still images related to each recorded event. Finding the event of interest used to take hours. Now it can be done in a matter of seconds.



VIAAS can also be set to send motion alerts based on schedules. If there is motion in an area when there shouldn't be, VIAAS sends a motion alert that includes photos of the scene.

VIAAS delivers advanced user management with no limit on the number of users in the account. Each user can be assigned specific cameras and has their own VIAAS dashboard with their settings and preferences. Users can be added, edited, and deleted in seconds by a Super User in the account. VIAAS allows unlimited Users, Admins, and Super Users and the ability to access the cameras from any web browser, any mobile device, anywhere.

## Minimizing Infrastructure Requirements

Traditional CCTV and network surveillance systems require cameras, DVR's or NVR's, video servers, video management software (VMS), dedicated monitoring stations and other equipment. VIAAS cameras connect directly to the VIAAS Cloud Service, eliminating DVR's, NVR's, video servers, software, and associated costs.

Surveillance cameras typically use considerable network bandwidth to move video, especially when streaming. Cameras that don't use intelligent motion detection, or stream

continuously, present a tremendous burden to the network, often competing with other business services, point of sale equipment, and users. For example, 50 conventional network cameras streaming continuously could easily use 100 Mbps of bandwidth, adversely affecting other users and services. 50 VIAAS cameras use only 6 Mbps (D1 resolution) or 16 Mbps (720p resolution) with Bandwidth Shaping™.

VIAAS's patented Bandwidth Shaping™ technology allows the cameras to minimize their network footprint, based on the needs of the business. VIAAS can be throttled down during normal operating hours and throttled up after hours, nights and weekends based on bandwidth schedules. This allows full functionality (recording, viewing, streaming on demand) with a fraction of the bandwidth needed by other systems. These features were developed to avoid the major problems that arise when dozens or hundreds of cameras are continuously streaming. VIAAS co-exists with other network devices and users without the need for costly network upgrades.

## Summary

Conventional surveillance systems require many parts and put enormous demand on existing network infrastructure. They have data storage capacity limits, channel limits and complex video management software packages. VIAAS delivers tremendous flexibility, allowing deployment one camera at a time, or hundreds. No other equipment is needed. Video retention is based on time not volume. With VIAAS there is no single point of failure as there is with DVR solutions. No need for space in server rooms or IT closets. VIAAS uses a fraction of the network bandwidth, and can be scheduled when it's least impactful to operations or business objectives. VIAAS is continuously updated, always operating with the latest software, mobile apps and user interface. VIAAS is professional surveillance and efficiency.