REAL-TIME VIDEO SURVEILLANCE

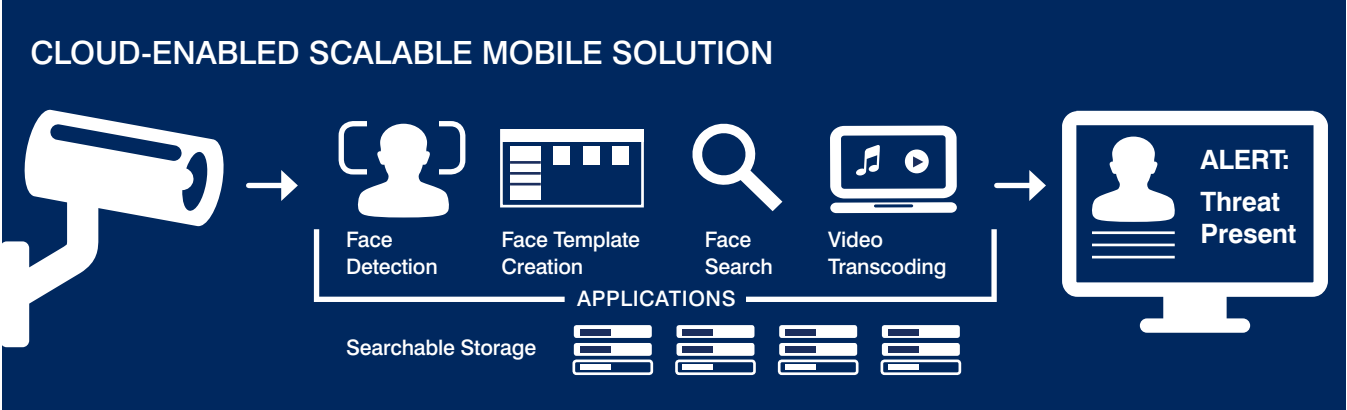## DELIVERING TIME CRITICAL INFORMATION TO DETECT AND RESPOND TO THREATS

The rapid growth in development and fielding of digital video surveillance and still image collection systems present agencies with a constantly increasing need to monitor live video and analyze large volumes of archived video and image collections. However, the explosive growth in the amount of content being disseminated and collected often requires large numbers of security personnel and analysts to be able to obtain actionable insight. Advanced, automated video surveillance technologies provide faster, cheaper and more comprehensive methods for monitoring live video footage for instances of persons of interest, providing security forces with time critical information needed to effectively detect and respond to threats.

Outstanding Warrant:
Approach with Caution

Tygart's real-time video surveillance monitoring and screening capabilities leverage its MXSERVER™ technology. MXSERVER is a server-based face detection and recognition system capable of transforming vast amounts of video and photo collections captured on a variety of devices into searchable resources. MXSERVER is capable of automatically finding, extracting and matching faces from very large media collections, even those captured on disparate and disconnected systems. This technology revolutionizes the use of existing watch lists, enabling agencies to apply them in new ways that extend their value far beyond prior use cases. By integrating the functionality of MXSERVER with video surveillance technologies, agents can now effectively monitor and screen high-density crowds, or points of entry/exit, in near real-time.

CLOUD-ENABLED SCALABLE MOBILE SOLUTION

Face Detection → Face Template Creation → Face Search → Video Transcoding → **ALERT: Threat Present**

APPLICATIONS

Searchable Storage

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Key Benefits

Improved Situational Awareness and Heightened Security: The system is capable of automatically identifying persons on a watch list by screening and monitoring a large number of high-definition video surveillance cameras and check-in kiosks located at check points, entry/exit portals and secure facilities. The system will alert security personnel of a potential match within seconds of a person passing a video surveillance camera or entering via an entry portal.

Save Countless Man-hours Monitoring Video Surveillance Footage: In lieu of manually monitoring video displays, security agents are able to quickly view and compare face images of potential "watch list hits" to determine if the possible match is a person of interest. Additional information is also provided to the agent to determine what, if any, actions need to be taken in response to the alert.

Easy Integration with Video Management Systems (VMS): MXSERVER can be quickly and seamlessly integrated with existing VMS implementations – adding automated watch listing, face indexing and search capabilities to core VMS functionality.

Cloud Scalability: As organizations deploy a greater number of video surveillance cameras (or expand the number of people on a watch list), MXSERVER processing capacity can be incrementally scaled to meet growing video analytic demands. Tygart's cloud-based architecture greatly simplifies system deployment and operations and management – delivering a lower cost of ownership than other large integrator alternatives.

Applications

Entry Point Security: Tygart's video surveillance monitoring solution supports the near real-time identification of people who pass through entry gates or check-in kiosks at high-density or high-value locations, such as special events, airports or secure government facilities.

Automated Visitor Authentication: Combined with a check-in kiosk system, MXSERVER provides the functionality required to capture, store and search high-quality digital photographs of individuals who enter a facility via a kiosk. The system can be utilized to perform visitor authentication.

Near Real-Time Evidence Gathering: With MXSERVER's automated video indexing feature, agencies will be prepared in advance of worst-case scenarios. Should a criminal or terrorist attack occur, MXSERVER facilitates the search and analysis of photos and videos, storing them in a searchable cloud-based repository that allows agencies to intelligently review collected video evidence from the scene.

Event Monitoring and Timeline Construction: In large-scale event situations, agents can use MXSERVER to batch load surveillance footage into the MXSERVER system shortly after it is captured. The system will automatically detect and display a timeline view of extracted faces that can be quickly scanned and reviewed to locate suspicious subjects. Videos can be quickly previewed by viewing scrollable grids of thumbnail images.

Features

Face Finding and Extraction: Automatically extract and index faces enabling live and recorded video surveillance and photo repositories to be searched biometrically or via metadata. MXSERVER can also extract and facially index images in documents, such as Microsoft Word, PowerPoint and Adobe PDF.

Automated Watch List Monitoring: Automatically screen and monitor video surveillance feeds at check points, entry/exit portals and secure facilities for persons on a watch list.

Search Video and Images Using Faces: Find instances where a person of interest has been seen and quickly review and exploit these videos to identify, locate and track persons of interest, their associates and their activities.

Scalable Face Search Engine: By intelligently distributing processing across a large number of servers, MXSERVER speeds searching of very large face databases containing tens-to-hundreds of millions of face images.

To learn more, please visit www.tygart.com/products/solution-application/video-surveillance/.

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