

VIVOTEK

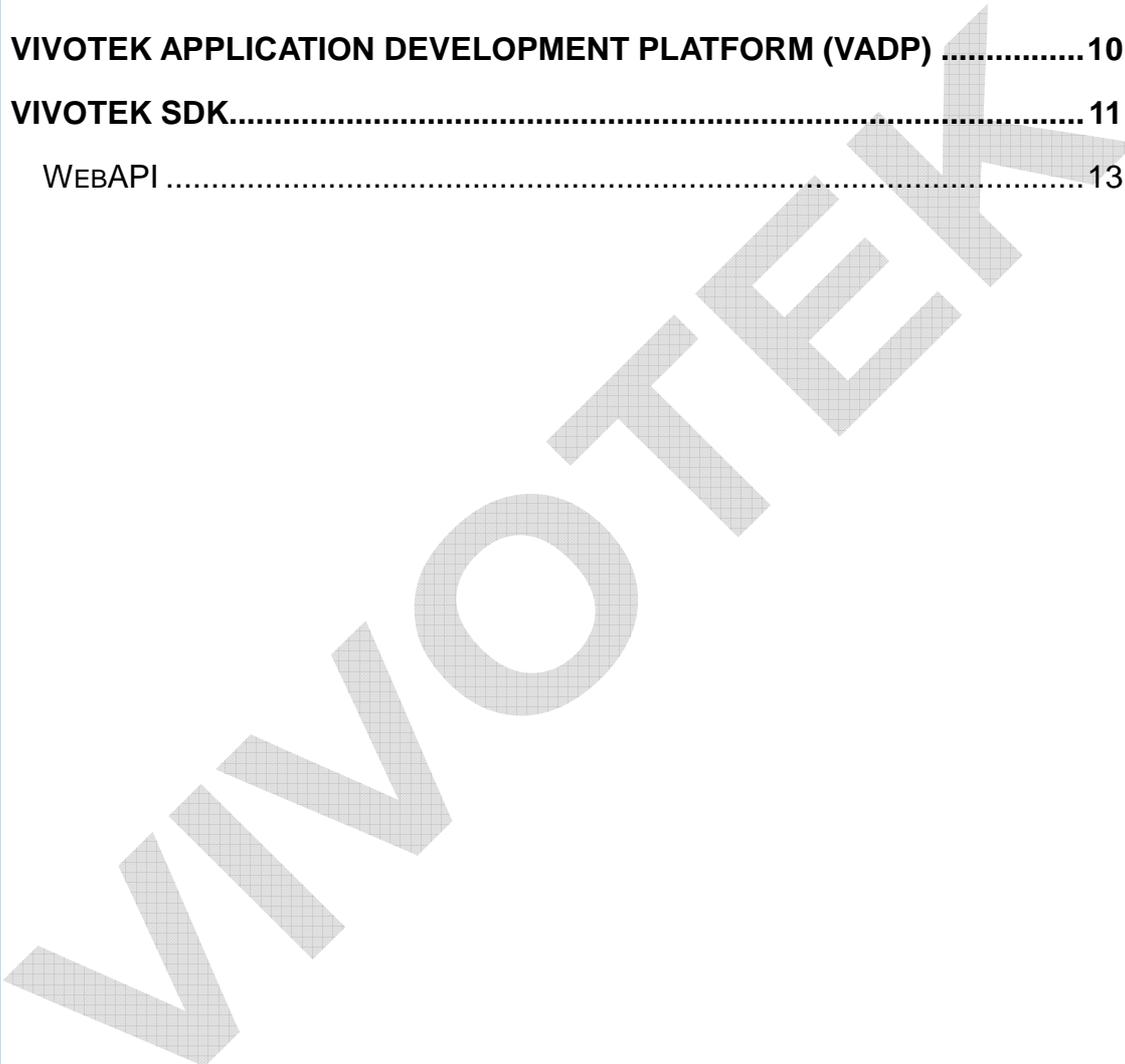
Solution Integration Alliance

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Introducing SIA

User needs have diversified in conjunction with the advancements in technology. As a result, conventional surveillance systems have gradually phased out, substituted by the demand for advanced video surveillance systems capable of in-time remote monitoring, detailed video analysis, interoperation among multi-systems and more. Numerous surveillance technologies are currently gaining considerable momentum, such as object counting, license plate recognition, facial recognition, image correction, and proactive access control system. The prevalence of these technologies implicate that surveillance solutions with superior technology integration will best fulfill the interest of contemporary users, and vendors that are able to adopt such solutions will inevitably gain a greater competitive advantage.

In this context, VIVOTEK launches the **S**olution **I**ntegration **A**lliance (SIA) program, which aims to agglomerate vendors from all sectors, incorporate VIVOTEK products into a variety of software and hardware platforms, and ultimately create comprehensive surveillance solutions that meet the diversified needs of different users. As a partner of the SIA, vendors have access to a wide spectrum of resources that can be utilized to enhance the functionality of their products, ensure the seamless interoperability with VIVOTEK products, and develop highly-optimized, highly-customized solutions for users, thereby creating a triple-win situation that benefits VIVOTEK, the vendor, and most importantly, the end-user.

To guarantee that partners are able to effectively acquire resources that meet their area of expertise, partners are assigned into 4 categories based on specialization, namely, Video Management Partner, Application Partner, Hardware Partner, and VIVOTEK Application Development Platform (VADP) Partner.

- The **Video Management Partner** - This category consists of vendors specializing in video management systems and related software, and focuses on creating advanced solutions by integrating VIVOTEK and vendor products.
- The **Application Partner** – This category is for software or hardware vendors on advanced requirement or special project needs, to set-up a safety and convenient environment, such as video analytics, POS, alarm system and access control system to recognize, analyze, give warning, or authorize access together with VIVOTEK products.
- The **Hardware Partner** - This category is designed for vendors specializing in the hardware components of surveillance systems.
- The **VADP Partner** – This category is for software developers who wish to create stand-alone applications or plug-in modules running on the VIVOTEK camera Application Development Platform (VADP).

Join VIVOTEK's SIA today, and elevate the competitive stance of your company by creating perfectly-integrated and feature-intensive products and providing clients with mainstream and prospective surveillance solutions. For more information on becoming a partner of this constantly-expanding network, please e-mail us (sia@vivotek.com).

- Please note Vendors that are assigned into the categories of Video Management Partner, Application Partner, or Hardware Partner are required to clearly list VIVOTEK as a mutual partner on their respective websites.
- Vendors assigned into the category of Video Management Partner are required to release a minimum of 1 solution with at least 1 VIVOTEK model integrated.
- Vendors are required to complete and submit the Online Partnership Survey (<http://goo.gl/forms/wlOlsI2fYf>).

Video Management Partner

Video management is undoubtedly an integral component in any contemporary surveillance solution. Therefore, one of VIVOTEK's key marketing strategies is to promote partnerships with global providers in video management. To achieve such a goal, VIVOTEK has invested considerable resources and time and closely collaborated with numerous extant partners to develop superior video management solutions for a variety of operating platforms, such as Windows- and Linux-based servers, network video recorders (NVR), network attached storage (NAS) systems, and independent devices.

Moreover, VIVOTEK has further expanded its relationship network to include peripheral software developers, creating supplementary software, such as the Video Management Software (VMS) or the Central Management Software (CMS), to meet the surveillance management needs of users in various vertical applications.

VIVOTEK provides vendors in the Video Management Partner category with Windows/Linux Software Development Kits (SDK) to achieve general and high-end functionality integration with VIVOTEK's network surveillance products, absolutely free. Partners also have access to VIVOTEK's unique HTTP-based application programming interface (API), enabling developers to manage video, motion detection, pan-tilt-zoom (PTZ), and event notification settings via already-familiar Command Gateway Interfaces (CGIs).

VIVOTEK Application Programming Interface

(VAPI)

By making resources accessible, VIVOTEK aims to assist video management partners in fully integrating VIVOTEK products into their own, accelerating R&D and product testing, and customizing products using the unique features of VIVOTEK, thereby creating greater added-value for the end-user.

- For Partners that finishing VIVOTEK Network Products integration by VIVOTEK WebAPI or SDK and put VIVOTEK logo, supporting model(s) on Partner's website.
- VIVOTEK will put “VAPI” icon with Partner's logo on Video Management Partner Page to indicate partners with closer and more specific integration.
- VIVOTEK will release Press Release and News for Partners that integrate VIVOTEK's special features and / or Joint Promotions based on Partner's Ranking.

Application Partner

VIVOTEK recognizes that customer needs are specific to individual contexts, and thus provides the resources required to create safe and easy-to-use architecture, such as video analytics, POS, alarm systems, and access control systems, for system operations. Further, VIVOTEK realizes the importance of providing the permissions required to incorporate and use VIVOTEK products across these diverse applications. In this context, the Application Partner category of SIA aims to establish and develop sound vendor-vendor partnerships and vendor-customer relationships, which can be achieved through product integration, strategy sharing, and value-added functionality, ultimately producing a triple-win situation that benefits VIVOTEK, the vendor, and most importantly, the end-user.

VIVOTEK's Application Partners Program is designed to establish and grow partnerships through tighter integration, sales collaboration and joint marketing and has the potential to increase the business of the video surveillance market, and leverage business connection opportunities. In addition, SIA partners have access to the entire SIA network, simplifying the search for compliant partners. Even more importantly, this rich network enables our customers to easily find partners who support VIVOTEK network products.

Hardware Partner

Hardware is the fundamental building block of any surveillance system. Without the very best in storage medias, monitors and camera enclosure and installation kits, VIVOTEK would be unable to provide optimal surveillance solutions. The hardware architecture of surveillance systems not only defines overall performance, but also the extent to which this performance is maintained. Moreover, favorable hardware combinations are essential to maximize the unique demands of customers in various contexts, whether it be specific vertical applications or comprehensive total solutions. Therefore, SIA's Hardware Partner category is designed to aid hardware designers in creating optimal products that meet customer demand, maximize the performance of these products, and integrate these products into various surveillance solutions.

To this end, VIVOTEK provides SIA hardware partners with the necessary technical support and documents to ensure a seamless integration between their hardware designs and VIVOTEK products, and actively promote knowledge sharing and encourage joint ventures, regardless of hardware type. Through extensive collaboration, vendors are able to tailor product combinations that meet the specific requirements of users and provide users with better-coordinated technical support, thereby gaining the satisfaction of new customers and elevating the satisfaction of existing users.

VIVOTEK Application Development Platform (VADP)

The VADP (VIVOTEK Application Development Platform) is an open development platform that allows developers to create third-party stand-alone applications or plug-in modules that enhance the features of VIVOTEK network cameras. Such applications enable VIVOTEK products to better meet the demands of system-integrators, resellers, and end-users, and can further be used to customize VIVOTEK products to create vertical solutions. Key functions developed using VADP include line crossing, field detection, object counting, heat map, and more.

To further spur exciting new developments in this area, SIA's VADP Partner category is designed to provide partners with the software-development-kits (SDK) for the VADP and any relevant technical documents and support. In addition, partners have access to a variety of tutorials, guidelines, and tools to assist them in integrating their software with specific VIVOTEK products. VIVOTEK is also happy to provide ongoing and dedicated technical support to our partners. Moreover, software created by partners is publicly listed on the VIVOTEK website under the compatible camera models. This elevates exposure of the software to attract potential customers and increase the loyalty of existing users.

VADP Partners can take advantage of the VIVOTEK Application Development Platform (VADP), which provides a comprehensive and easy-to-use framework for developing.

In addition, the VADP Partner program provides free dedicated technical support, access to technical tools and documentation, and other resources to facilitate the development of software applications.

VIVOTEK SDK

VIVOTEK's software Development Kits (SDK) using standard protocols to provide tools, documentation, and code samples that partner can take full advantage of VIVOTEK'S technological advances. VIVOTEK offers WebAPI and Advanced SDK for Partners of developing applications.

- WebAPI
VAPI is VIVOTEK's application programming interface, which provides efficient, adaptable and flexible methods of integrating on varieties of applications and systems. VIVOTEK aims to continuous developing and maintaining VAPI for all of VIVOTEK products to control foundation functions.
- Advanced SDK
For some unique and special features that only can be operated on VIVOTEK products, VIVOTEK has provided different tools for partners to integrate, such as DLL based SDK, SDK tool, Discovery Tool, Script and others.

The DLL based SDK is a combination of several independent DLLs (Dynamically-Linked Library), which are written with the C programming language; its interface is also a C interface. It includes different functional components, each components has its own specific purpose and capability. For example, some components support the function of transmitting audio and video data, while others are designed to decode video and audio data. Such flexibility allows programmers to build up programs with the needed components.

Most of Advanced SDK can be operated on both the Linux and Windows operation systems.

Programmers have to spend relatively more effort when writing specific functions. For example, when connecting to the

streaming server (Network Camera or Video Server) and requesting media data from the server, programmers can configure the decoding processes for the video and audio, the optional methods, and even the time display.

These Advanced SDKs are under "Non-disclosure agreement" protection. The SDK can be available after the NDA is signed.

Note

ActiveX Control, used to denote reusable components of the software, is based on Microsoft Component Object Model (COM). Generally speaking, the program can only be developed with languages supporting COM, such as VB, Visual C++ or C# and operated on the Microsoft Windows operation system.

WebAPI

New File	Introduction
Video-Audio Data Format	This document describes the media data formats, including digital input starts, digital output starts, and motion detection, among others, used in the multi-stream product series.
PTZ Driver Script	This document describes the PTZ control methods via RS-485.
VIVOTEK Web API List	This document provides the supersets of URL commands for VIVOTEK products. The HTTP-based camera interface enables developers to query single images, control camera functions (incl., PTZ and output relay, etc.), and receive and set internal parameter values. The image and CGI-queries are handled by the built-in web server.
Video Streaming	This document contains information about the APIs for common video-related settings, such as text-on video, resolution, and codec type, among others. With these APIs, developers are able to configure video streaming with customized settings to meet specific needs and/or preferences.
PTZ Control	This guide provides details on the pan, tilt, and zoom (PTZ) functionalities of VIVOTEK cameras. The PTZ application programming interface (API) shows the methods and the parameters employed to control the mechanical PTZ of VIVOTEK speed dome cameras. These methods and parameters are further classified into Querying API, Control API, and Application API.
Timeshift	The exceptional time-shift streaming feature temporarily stores pre- and post-event images on a buffer memory in the camera, giving the user a view of events leading up to and after incidents.
Seamless Recording	Edge services in CMS software adopts seamless recording to recover recordings following network failure or other unexpected conditions.
Edge Storage	Edge storage API, illustrated in this document, can be applicable in CMS or other software to achieve the above mentioned goals. The content of this document is arranged as follows: Detect, Control, Search and Play.
Two Way Audio	This document describes the technical specifications of SIP 2-way audio. The SIP protocol follows RFC 3261.
Multi-channel Camera Integration Guide	VC8201 is the first among VIVOTEK products equipped with "changeable sensors" and "multi-channel architecture." All APIs follow the rules described in the following the "VideoStreaming" document. The guide contains simple cases, limitations, and notices to assist rapid VC8201 integration.

New File	Introduction
Fisheye Local Dewarp	This document describes the porting information of Fisheye local dewarp function. This function provides users with dewarp views from the camera without engaging in post-processing from the client side. Users can obtain dewarp content on specific streams without plug-ins (web) or additional dewarp modules (software), and control the dewarp parameters by CGI command.
Panoramic PTZ	This document illustrates the operation command for VIVOTEK's unique panoramic feature to control the PTZ (Speed Dome) cameras
Video Content Analysis (VCA)	VIVOTEK VCA System was designed based on ONVIF analytics spec, which contains two modules, a Video Analytics Engine and Rule Engine. This document provides an introduction of the functions of these two engines. Further details can be accessed through the ONVIF Analytics Specification. The operation for VCA system integration is a standardized method of Web Services such as XML, SOAP and WSDL over an IP camera. XML is used as the data description syntax, SOAP is used for message transfer and WSDL is used for describing the services.

