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## Highlights

- Provide real-time alerts for predefined behaviors of people, vehicles and objects.
  - Index alerts and other activities across every camera and sensor.
  - Index a wide variety of attributes about each and every event.
  - Process millions of events to create an index that can be searched, analyzed and correlated in seconds.
  - Customize dynamic behavior analysis based on user-defined criteria or new threat models.
  - Use the same video feed for multiple applications.
  - Use existing cameras and network infrastructure.
  - Increase productivity and efficiency.
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# IBM Intelligent Video Analytics

*Enhance security and public safety with comprehensive security, intelligence and investigative capabilities*

IBM Intelligent Video Analytics offers an event-based solution that analyzes video feeds to provide alerts for security staff—in real time. Intelligent Video Analytics supports activity search, cross-correlation and trend analysis enabling the efficient analysis of video footage both in real time and for investigations.

## Rich, content-based indexing and search

Intelligent Video Analytics helps develop a comprehensive threat model customized to the environment. It can identify perimeter breaches, as well as abandoned objects, objects removed, and people and vehicle activity. The Intelligent Video Analytics framework can also integrate specialized analytics such as license plate and facial recognition.

The broad capabilities of Intelligent Video Analytics fully complement and enhance an existing security infrastructure to provide defense against, as well as proactive understanding of, security vulnerabilities. These capabilities can easily be used in many industries and business environments.



Figure 1: Indexing attributes of people in public areas.



Real time alerts	Indexing and search
<ul style="list-style-type: none"> <li>• Motion detection</li> <li>• Trip wire</li> <li>• Object removal or abandonment</li> <li>• Counter flow detection</li> <li>• Tailgate detection</li> <li>• Facial capture</li> <li>• Facial recognition</li> <li>• License plate recognition</li> <li>• Combination alerts</li> <li>• Customized alerts</li> <li>• Crowd forming / running</li> <li>• Loitering</li> <li>• Directional motion</li> </ul>	<ul style="list-style-type: none"> <li>• Attribute-based search (size, color, speed)</li> <li>• Date and time ranges</li> <li>• By location, in field of view</li> <li>• License plate search (partial or full)</li> <li>• Across multiple cameras</li> <li>• Track objects in view</li> <li>• Attributes-based search (add: time, duration)</li> <li>• Face search</li> <li>• Counting</li> <li>• Able to work in crowded scenes and challenging environment conditions</li> </ul>

### Standards-based, open, extensible architecture

Intelligent Video Analytics has advanced detection, classification, and indexing algorithms that help the user “mine” the index of events for a variety of criteria. Users can search real time and historical data for specific items, such as vehicles and objects. To narrow the search, data mining allows searching by color, size or speed of a moving object, such as an automobile.

Intelligent Video Analytics provides a statistical analysis of activities, such as people entering a building. Sort by date, time, or over an extended period of time, to perform a trend analysis. Figures are linked to their particular video feed for immediate viewing when a potential anomaly must be reviewed promptly.

Intelligent Video Analytics can provide invaluable, real-time information about an incident in progress to law enforcement or first responders, helping to increase the productivity and effectiveness of the security staff.

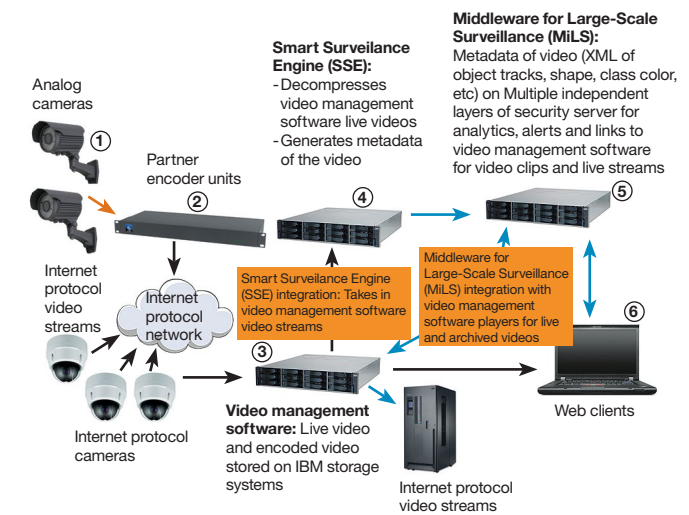


Figure 2: Sample network diagram of Intelligent Video Analytics standards-based, open and extendable architecture.

### Intelligent Video Analytics can use existing cameras and network infrastructure

Intelligent Video Analytics architecture is specifically designed to facilitate interoperability with products from different vendors to broaden and enhance the overall security framework for a particular environment. This approach to video analytics allows an organization’s preventive security controls, countermeasures and safeguards to evolve as needed, incorporating third-party products and services, such as specialized analytics, sensor data, and integration with transactional information technology systems.

This interoperability helps make the Intelligent Video Analytics easier to implement by using and enhancing current technologies, rather than isolating them. As a result, Intelligent Video Analytics provides the necessary framework for security controls that can adapt to new threats.

Intelligent Video Analytics can be deployed in analog, digital or hybrid environments. Organizations are not required to purchase the latest cameras or overhaul the existing video system infrastructure. Intelligent Video Analytics can be integrated into the current environment and receive the video feeds from existing analog and digital cameras from supported video management software.

It then performs analysis, generates alerts, and indexes data based on the information in each frame. If sufficient capacity exists, Intelligent Video Analytics can also run on an existing network infrastructure, further lowering the costs and resources that would otherwise be needed to deploy a new network architecture.

Intelligent Video Analytics integrates with video management software and network video recorder solutions, including Genetec, Milestone, Cisco, Acti and Pelco. Others that support Microsoft Direct Show Filter can be easily integrated or customized. Intelligent Video Analytics uses video management components to effectively distribute, store and manage incoming video feeds from every camera on the security network.

### **Additional related services**

Besides implementation expertise, IBM has extensive experience in both logical and physical security. IBM can perform related services that will augment the Intelligent Video Analytics security architecture. These services include:

- Project management
- Business value workshop
- Physical and logical security assessment
- Vulnerability and risk assessment
- Policies, process, and standards definition
- Solution and infrastructure design recommendations
- Custom user interfaces and analytic functions
- System integration and solution implementation (infrastructure, network and equipment)
- Certification and accreditation
- Compliance audits
- Training
- Technical support

### **Team with industry leaders**

IBM Solutions for Smarter Cities® provide cross-agency capabilities using a variety of data streams and services already found in city environments today. In addition, IBM is teaming with the providers of data streams and services to deliver end-to-end solutions. IBM has a robust ecosystem of IBM Business Partners with industry experience that deliver best-in-class hardware, software and services. IBM Business Partners are helping IBM deploy Smarter Cities solutions around the globe.

## IBM helps build a Smarter Planet™ with Smarter Cities

For 100 years, IBM has been working to make the world a better place by helping businesses and local governments in more than 170 countries deploy innovative solutions. IBM Intelligent Traffic Operations and Prediction is just one of many IBM Solutions for Smarter Cities that continue this tradition, providing real solutions that can facilitate sustainable growth and offer a robust foundation for building a smarter city. By making cities more instrumented, integrated and intelligent, IBM Solutions for Smarter Cities can help city leaders meet and exceed citizen expectations through innovation.

### For more information

To learn more, contact your IBM representative, IBM Business Partner or visit:  
[ibm.com/software/products/us/en/intelligent-video-analytics/](http://ibm.com/software/products/us/en/intelligent-video-analytics/)



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