

# Intelligent IP Video Surveillance

Omnicast™ is the IP video surveillance system of the Security Center, Genetec's unified security platform. Omnicast is the ideal solution for organizations requiring seamless management of digital video, audio and data across any IP network. With innovative features such as the Virtual Matrix and built-in fault tolerance, Omnicast has proven to be the solution of choice in numerous vertical markets including transportation, education, retail, gaming and more.

Although Omnicast can be installed as a standalone video surveillance system, end users benefit tremendously when Omnicast is seamlessly unified with Genetec's Synergis IP access control and AutoVu IP license plate recognition systems within the Security Center. Unification within the Security Center offers customers a single platform from which to manage and monitor all of their security and safety applications, generate consolidated reports, and centralize all of their alarm management.



## OMNICAST



GENETEC



# Innovative Features

Omnicast offers pioneering capabilities which give security professionals unrivalled advantages.



**Federation™** — Through the Security Center's Federation feature, multiple independent Omnicast systems can be unified into a single virtual system. Security departments are then able to centrally monitor hundreds of remote sites from the Security Center's unified interface, the Security Desk. Federation is ideal for multi-site, multi-region, and city-wide surveillance deployments, allowing security to transcend organizational and geographic boundaries.



**Metadata Engine** — The Metadata Engine redefines security data management. Data from multiple sources, such as video analytics, POS (point-of-sale), LPR (license plate recognition) and access control, are collected by the Metadata Engine and indexed to the relevant video/audio sequence(s), enabling intelligent queries and detailed real-time event information.



**Failover and Redundancy** — Omnicast's failover and redundancy features ensure access to all live and archived data, at all times. Failover servers can automatically assume all functions of a failed component, while redundant servers continuously record all or only high-priority camera feeds.

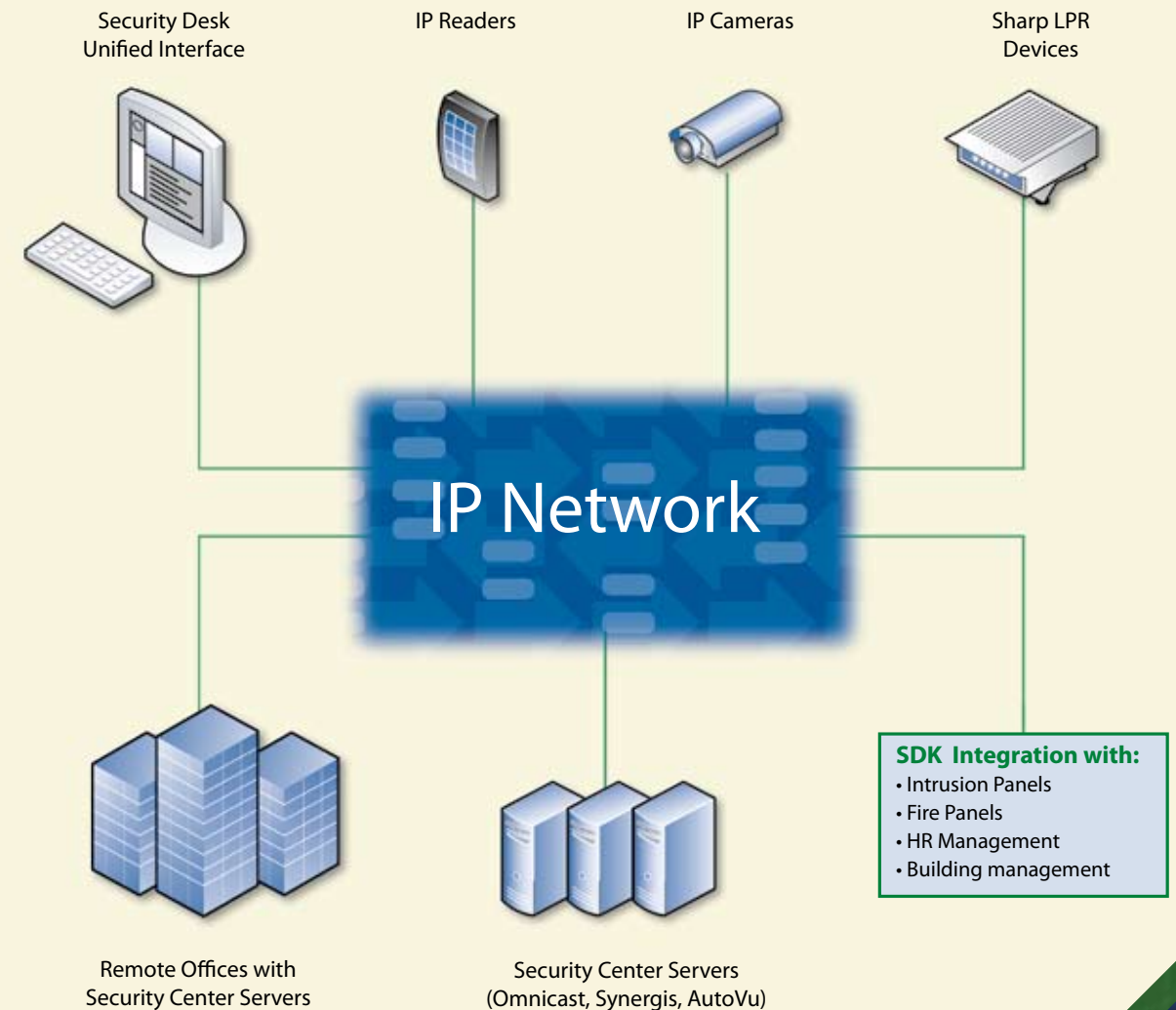
**IP Intercom** — Leveraging Omnicast's IP architecture, audio can be transmitted over standard LANs, WANs or even the Internet, through Omnicast's IP Intercom feature. The IP Intercom is an innovative and easy-to-use audio recording and vocalization tool providing two-way audio communication.

**Video Analytics Technologies** — Revolutionary video analytics technologies offer users unparalleled intelligence with sophisticated object and human detection and identification capabilities. From abnormal behaviour recognition, to access tailgating and object-left detection, video analytics technologies can be used to generate specific and actionable alarms.

**Integrity Safeguards** — Omnicast offers multiple security features to safeguard against tampering, interception and distortion of video along with unauthorized access to the system. Technologies employed include 128 bit SSL encryption on all communications as well as an integrated digital signature that uniquely identifies each video frame.

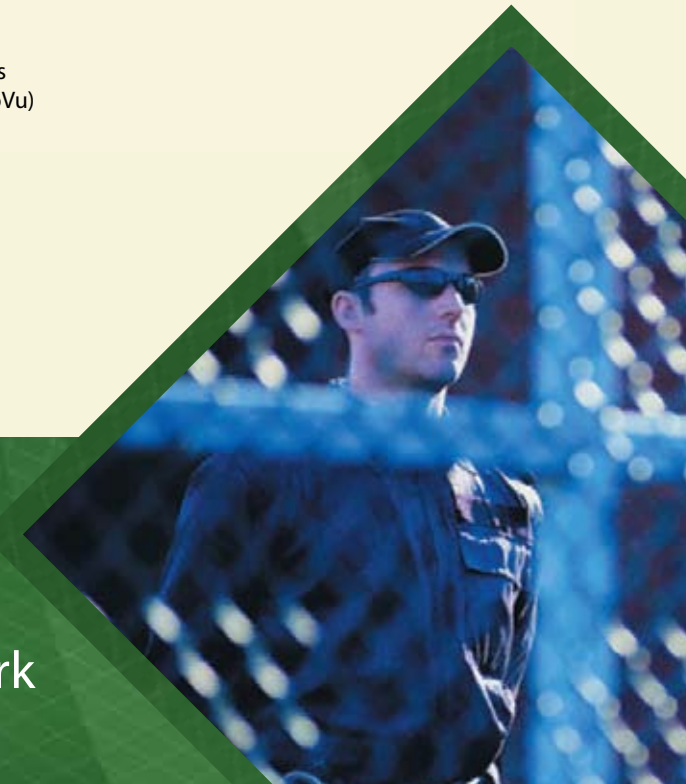
# Solution Diagram

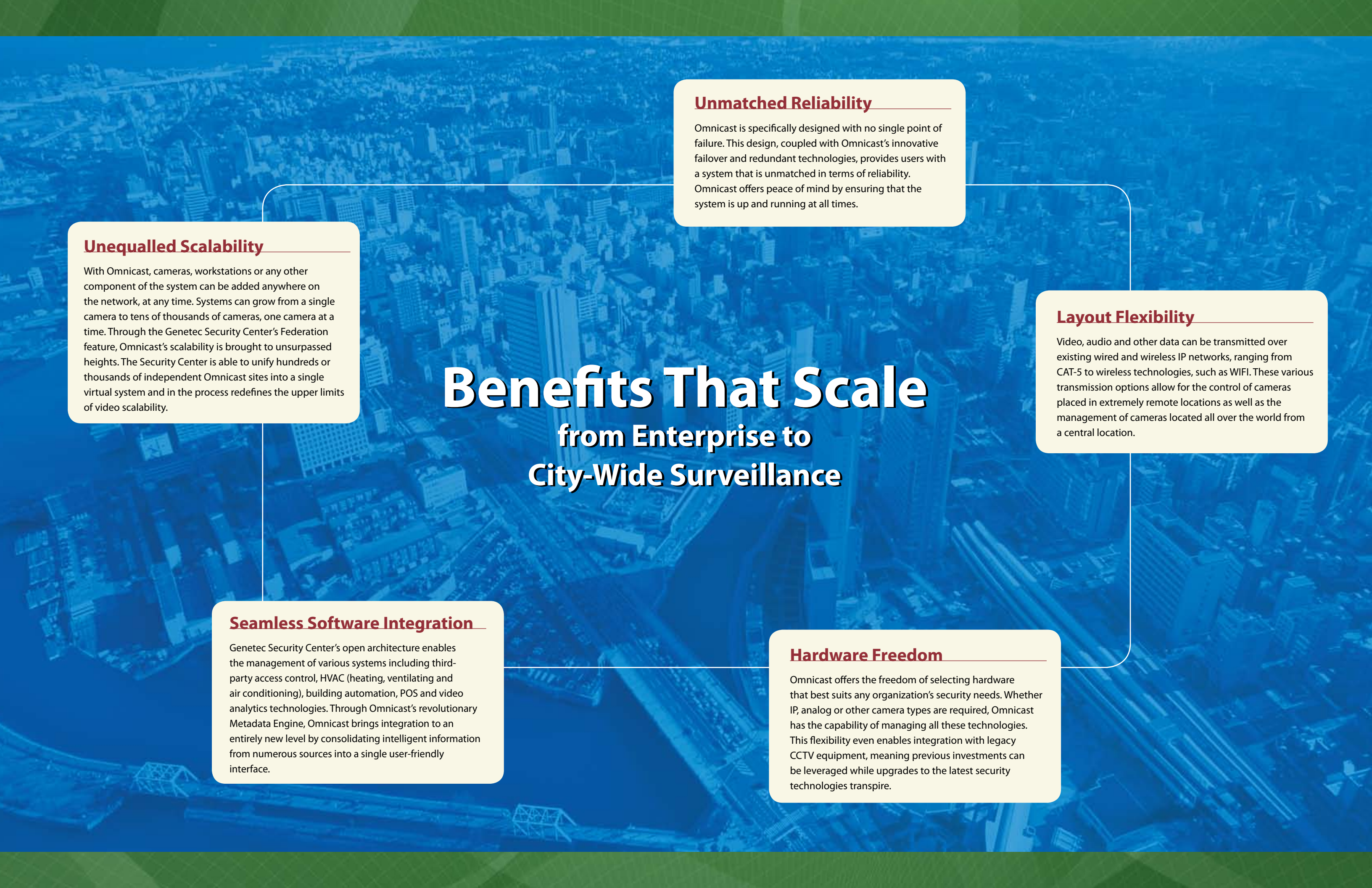
The IP network is central to Omnicast's architecture, providing end-to-end connectivity from video camera to client workstation around the world.



# I Choose Omnicast

Provides seamless management of digital video, audio and data across any IP network





# Benefits That Scale from Enterprise to City-Wide Surveillance

## Unequaled Scalability

With Omnicast, cameras, workstations or any other component of the system can be added anywhere on the network, at any time. Systems can grow from a single camera to tens of thousands of cameras, one camera at a time. Through the Genetec Security Center's Federation feature, Omnicast's scalability is brought to unsurpassed heights. The Security Center is able to unify hundreds or thousands of independent Omnicast sites into a single virtual system and in the process redefines the upper limits of video scalability.

## Seamless Software Integration

Genetec Security Center's open architecture enables the management of various systems including third-party access control, HVAC (heating, ventilating and air conditioning), building automation, POS and video analytics technologies. Through Omnicast's revolutionary Metadata Engine, Omnicast brings integration to an entirely new level by consolidating intelligent information from numerous sources into a single user-friendly interface.

## Unmatched Reliability

Omnicast is specifically designed with no single point of failure. This design, coupled with Omnicast's innovative failover and redundant technologies, provides users with a system that is unmatched in terms of reliability. Omnicast offers peace of mind by ensuring that the system is up and running at all times.

## Layout Flexibility

Video, audio and other data can be transmitted over existing wired and wireless IP networks, ranging from CAT-5 to wireless technologies, such as WIFI. These various transmission options allow for the control of cameras placed in extremely remote locations as well as the management of cameras located all over the world from a central location.

## Hardware Freedom

Omnicast offers the freedom of selecting hardware that best suits any organization's security needs. Whether IP, analog or other camera types are required, Omnicast has the capability of managing all these technologies. This flexibility even enables integration with legacy CCTV equipment, meaning previous investments can be leveraged while upgrades to the latest security technologies transpire.

# Intuitive Client Applications

Omnicast's client applications are tailored to match and surpass the requirements of today's security professionals.



**Security Desk** — The Genetec Security Desk represents the most advanced and cutting-edge user interface in today's security industry. Available when Omnicast is activated within the Genetec Security Center, the Security Desk seamlessly merges Omnicast Live Viewing and Archive Playing functionality into a single client application. Through innovative concepts such as a dynamically adaptive interface, widgets, and a task-oriented approach to operations, the Security Desk empowers operators through its simplicity.

**Live Viewer** — The Live Viewer serves as the control and monitoring center of an entire security system.

**Archive Player** — The Archive Player offers quick and effective retrieval and playback of all stored video, audio and data.

**Config Tool** — The Config Tool provides an easy-to-use interface that enables operators to manage and configure various components of the Omnicast system such as sites, users, archiving schedules, recordings and various other devices.

**Web Client** — The Web Client provides unlimited remote access to all live and archived video, audio and data.

**Report Viewer** — The Report Viewer presents a customizable and user-friendly reporting tool which ensures that administrators are continually aware of all aspects of their security system through standard report options.

**Discovery Tool** — The Discovery Tool enables efficient and rapid deployment of the system by automatically identifying all the cameras connected to the LAN.

**Media Gateway** — The Media Gateway allows municipalities, transportation ministries and other organizations to provide the general public with live video feeds over the internet.

**Map Editor** — The Map Editor enables users to create interactive maps through a simple drag-and-drop function allowing easy control of system functions, including PTZ controls and alarms.

# The Security Center

The Security Center is a unified security platform that seamlessly blends Genetec's IP video surveillance, access control and license plate recognition systems within a single innovative solution. The Security Center fuses the common features of security operations, such as real-time event and video monitoring, advanced reporting, and alarm management, which is easily accessible through Genetec's ultra-modern unified interface called the Security Desk. The Security Desk relies on cutting-edge design technologies and usability concepts that all work together to provide consistent operator workflows across all of the Security Center's main security and safety systems.



## Specifications

### Video

- MPEG-4 / H.264 / MPEG-2 / MJPEG / Wavelet compression
- Bandwidth managed from 8 Kbits/s to 20 Mbits/s per camera
- Up to 60 fps per camera
- Resolution from 160x120 to multi-megapixels
- IP and analog camera support

### Transmission

- Video and audio over any IP network
- IP multicast with minimal bandwidth use
- Wireless connectivity over 802.11a/b/g or cellular
- Remote access via DSL, cable, cellular, ISDN, T1 or T3

### Display

- Up to 16 simultaneous live cameras displayed per digital monitor
- Unlimited remote sites monitored from the Genetec Security Center
- Unlimited digital monitor support
- Analog video wall support
- Dynamic graphical maps generated with the Map Editor
- Instant replay capability on any camera
- Digital zoom for clear identification
- Overlay PTZ control

### Storage

- Distributed archiving with unlimited storage
- Supported edge device recording
- Archiving through standard storage technology
- Multi-stream technology for independence of storage and live display settings
- Intelligent search capabilities based on metadata, date/time, events, bookmarks and motion
- Schedules derived from sunrise/sunset, metadata, time/date, event, motion

### Integration

- Unified under the Security Center platform with Synergis IP access control and AutoVu LPR
- Over 30 PTZ control protocols
- Video analytics solution
- Point of sale (POS)
- Major third-party access control systems
- Building automation
- Heating, ventilating & air conditioning systems (HVAC)
- CCTV matrix switches and keyboards
- DVR

### Audio

- Full-duplex IP intercom
- Multiple audio protocols (G.711, G.723, GSM)

# I Choose Omnicast

The superior video solution for transportation, education, retail, gaming industries and more





# OMNICAST



## About Genetec

Genetec is a pioneer in the physical security and public safety industry and a global provider of world-class IP video surveillance, access control and license plate recognition (LPR) solutions to markets such as transportation, education, retail, gaming, government and more. With sales offices and partnerships around the world, Genetec has established itself as the leader in innovative networked solutions by employing a high level of flexibility and forward-thinking principles into the development of its core technology and business solutions. Genetec's corporate culture is an extension of these very same principles, encouraging a dynamic and innovative workforce that is dedicated to the development of cutting-edge solutions and to exceptional customer care.

For more information, visit  
[www.genetec.com](http://www.genetec.com)



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