Genetec

Omnicast

Networked Video Surveillance

That Goes Beyond Your Expectations

Innovative **Solutions**

Omnicast™ is the IP video surveillance system of the Security Center, Genetec's unified security platform. Organizations requiring seamless management of digital video, audio and data across any IP network choose Omnicast for the right reasons:

Grow Your System beyond Thousands of Cameras

Omnicast will grow with you, without limitations. This powerful video management system supports up to 50,000 cameras and an unrestricted number of client workstations, and other system components. Add one camera at a time or hundreds anywhere on the network. Or standardize on Omnicast across your entire enterprise, regardless of geographic boundaries, using the Federation feature.

Customize Your System to Suit Your Needs

Omnicast's open and distributed architecture gives you the freedom to completely customize your system. Select your own wired or wireless hardware. Choose from third-party analytic vendors. Leverage existing investments. Even set up your network the way that works best for you or use a mature SDK to integrate business processes. You make all the decisions with Omnicast.

Decrease The Learning Curve and Reduce Training Costs

As part of Genetec's unified security platform, Omnicast offers highly intuitive user interface features. Operators can drag and drop video tiles, control PTZ cameras, monitor third-party system alarms. This is all done via one simple and ingeniously engineered interface. Simplicity of the system keeps training costs to a minimum and setup wizards and IP unit discovery tools make installation a breeze.

Ensure Your Video Is Always Up and Protected

There is no single point of failure with Omnicast. Reliable redundant and failover archiving features warrant high system availability for both live and recorded video at all times. And intricate encryption, user-access privileges and security features ensure that your video, data and audio are always protected.

Choose A Future-Proof and Cost-Efficient System

Omnicast was the first IP video surveillance solution released on the market in 2001. It currently manages over 600,000 video surveillance cameras worldwide. Thanks to its proven reliability and system flexibility, transportation, education, retail, gaming, and government institutions continue to benefit from Omnicast over the years.

Key Product Features
That Make All The Difference

Multicasting. Allow many users in various locations to view a video feed simultaneously, without overcrowding the network, by using the bandwidth of each network segment only once.

Multistreaming. Configure different video settings for different video usage, such as live viewing, remote live viewing, recording, etc., for storage flexibility and bandwidth optimization.

Motion Detection. Use Omnicast's built-in motion detection algorithm to determine the presence of motion in a video tile. Also specify the level of motion required to trigger an event or archiving.

Edge-Based Video Analytics. Leverage video analytic capabilities offered by some IP video edge devices, by managing the events and alerts detected in Omnicast.

Virtual Matrix. Convert your traditional CCTV matrix that switches hard wired video cables to Omnicast's Virtual Matrix that instead switches IP video streams. It offers an infinite number of inputs/outputs and can function with existing CCTV keyboards.

Web Clients. Remotely and securely access live or archived video through Web applications without having to install any applications on your PC.

Metadata Engine. Receive correlated real-time or archived information from Omnicast and other third-party systems such as video analytics and points-of-sale solutions.

Federation. Unify multiple independent Omnicast systems under a single virtual system for ease of global live video monitoring and playback, alarm management, and reporting across all time zones.

Failover and Redundancy. Ensure access to all live and archived camera feeds using Omnicast's failover and redundancy servers, even in the event of a failed component.

Event-Action Mechanism. Program Omnicast to trigger specific actions such as start/stop recording, point a camera to a specific preset, send email notifications or trigger an alarm when an event is detected in the system.

Alarm Management. Configure or trigger alarms based on different events and associate each event to specific users and required actions such as acknowledge, forward, snooze or show the procedure.

Software Development Kit (SDK). Integrate building management systems, enterprise resource planning systems, intrusion detection systems or develop custom business applications with a mature software development kit.

Active Directory Integration. Centralize the management and synchronization of Windows user accounts with Omnicast's user and cardholder accounts and provide single sign-on capabilities.

More System Capabilities
and Technical Specifications

User Interface

- Fully configurable user interface
- Support for as many monitors as the equipment can handle
- Full-screen mode option
- Up to 16 live or playback cameras per monitor
- Advanced search tool for cameras and other entities
- Remote live viewer to control other client stations on the network

Live and Playback Monitoring

- H.264, MPEG-4, MPEG-2, MJPEG, Wavelet and JPEG2000 video compression
- Standardized QCIF to 4CIF video formats, non-CIF, megapixel and HD resolutions
- Bandwidth managed from 8 Kbits/s to 20 Mbits/s per camera
- Side-by-side live and playback video
- Real-time video up to 60 fps per camera, regardless of the number of cameras
- Real-time audio transmission linked to video cameras
- Full-duplex IP intercom with multiple audio protocols (G.711, G.723, GSM)
- Synchronous playback of live video and audio
- Graphical archive content preview, showing motion, bookmark and metadata
- Full playback control, including playback speed, loop, skip to previous/next bookmark
- Export video sequence in proprietary (G64) or public (AVI, ASF) formats
- Instant replay of any camera on display
- PTZ camera control including PTZ-in-tile controls
- Digital zoom for clear identification
- Bookmark capabilities for archive search and retrieval
- Save and print video snapshots
- Interactive maps to control the system
- Support input and output events
- Decoder support
- Software-enabled motion detection
- Camera sequences
- Macros

Alarm Management

- Pre-/post-alarm recording
- Live, playback and still-frame alarms
- Full range of alarm management controls
- Simple, salvo and block mode
- Acknowledgment, snooze, forward, procedure

Video and Audio Transmission

- Video and audio transmitted over standard LANs, WANs and Internet
- Multistreaming up to 6 streams per camera
- Multicasting support
- Video image cropping
- Dynamic stream switching
- Wireless connectivity over 802.11a/b/g or cellular
- Remote access via DSL, cable, cellular, ISDN, T1 or T3
- Video setting options including compression format, frame rate, resolution, quality, bitrate, key frame interval

Video Archiving

- Up to 300 cameras or 300 Mbps per archiver
- Support for any PC and conventional storage technology (IDE, SCSI, iSCSI, RAID, NAS, SAN, etc.)
- Configurable recoding schedules set daily, weekly, monthly, yearly, daytime, nighttime or specific dates and within specific time ranges
- Recording mode: continuous, on motion, on events, on alarms, manual
- Pre/post recording up to 300 seconds
- Video down-sampling
- Microsoft SQL Server-enabled queries of video by camera, event type, analytic events, bookmark, time and date, level of movement, alarm, metadata
- Supported edge-device recording
- Synchronous and reverse video playback
- Local and auxiliary archiving
- Multi-stream recording from the same camera at different qualities
- Support for multiple archivers
- Programmable back-up schedules
- Configurable archive retention periods per camera

Security Measures

- Configurable user-access privileges
- Secure remote access capabilities
- Anti-tamper digital signature on video recording
- Password protected export
- Authenticated user logins
- Supervised login procedures
- Support for Windows Active Directory
- User activity logs
- 128 bit SSL (Secure Socket Layer) command encryption
- HTTPS support

Failover and Redundancy

- Failover directory
- Failover and redundant archiving (hot-standby to minimize downtime)
- Failover virtual matrix
- Windows clustering
- Virtualization support
- Distributed architecture

System Configuration

- Copy configuration
- Silent installation for mass deployment and upgrades
- Auto-discovery of cameras
- Video unit swap for defective camera/encoder replacement

Supported Languages

English / French / Arabic / Czech / Dutch / German / Italian / Japanese / Korean / Persian / Portuguese / Simplified-Traditional Chinese / Slovak / Spanish

Standalone or Unified with LPR and Access Control

Omnicast can be installed as a standalone video surveillance system or unified with Genetec's AutoVu IP license plate recognition and Synergis IP access control 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.

Hardware and Software Integrations

- Unified with AutoVu license plate recognition (LPR) and Synergis IP access control within the Security Center unified security platform
- Support for over 40 major camera manufacturers
- Support for over 75 PTZ control protocols
- CCTV matrix switches and keyboards
- DVR support
- Video analytics solutions, server or edge-based
- Point of sale (POS) solutions
- Perimeter protection systems
- Major third-party access control systems
- Building automation solutions
- Heating, ventilating & air conditioning systems (HVAC)
- Video walls

Minimum **System Requirements**

Client Station Requirements

Low (1-16 cameras[1])

- Intel® Pentium® D 2.8 GHz, 2 MB Cache, 800 MHz FSB
- 1 GB of RAM
- 80 GB of storage or more
- 128 MB PCI-Express video adapter with DirectX 9.0 support
- 1024 x 768 or higher screen resolution
- 10/100 Ethernet Network Interface Card
- 16x DVD+/- RW Drive[2]
- Sound Card

Medium[3] (16-32 cameras[1])

- Intel® Core®2 Duo 2.93 GHz or higher, 4 MB Cache, 1066 MHz FSB
- 2 GB of RAM
- 250 GB of storage or more
- 256 MB PCI-Express x16 dual-head video adapter with DirectX 9.0 support
- 1280 x 1024 or higher screen resolution
- 10/100/1000 Ethernet Network Interface Card
- 16x DVD+/- RW Drive[2]
- Sound Card

High[4] (32 cameras or more[1])

- Intel® Core®2 Quad 2.40 GHz or higher, 4 MB Cache, 1066 MHz FSB
- 4 GB of RAM
- 250 GB of storage or more
- 256 MB PCI-Express x16 dual-head video adapter with DirectX 9.0 support
- 1600 x 1200 or higher screen resolution
- 10/100/1000 Ethernet Network Interface Card
- 16x DVD+/- RW Drive[2]
- Sound Card

Server Requirements[5]

Low (1-50 cameras[1])

- Intel® Xeon® 3.0 GHz, 2 MB Cache, 800 MHz FSB
- 2 GB of RAM
- 80 GB of storage or more
- Additional hard drive(s) for video storage
- Standard SVGA video card
- 800 x 600 or higher screen resolution
- 10/100 Ethernet Network Interface Card
- DVD ROM drive

Medium (50 -100 cameras[1])

- Dual Core Intel® Xeon® 5150, 2.66 GHz, 4 MB Cache, 1333 MHz FSB
- 2 GB of RAM
- 80 GB of storage or more
- Additional hard drive(s) for video storage
- Standard SVGA video card
- 800 x 600 or higher screen resolution
- 10/100/1000 Ethernet Network Interface Card
- DVD ROM Drive

High (100 cameras or more[1])

- 2x Dual Core Intel® Xeon® 5150, 2.66 GHz, 4 MB Cache, 1333 MHz FSB
- 4 GB of RAM
- 80 GB of storage or more
- Additional hard drive(s) for video storage
- Standard SVGA video card
- 800 x 600 or higher screen resolution
- 10/100/1000 Ethernet Network Interface Card
- DVD ROM Drive

Software Requirements

Operating Systems[6]

- Microsoft® Windows XP Pro SP2/SP3 32-bit/64-bit
- Microsoft® Windows Vista SP1 Business or Ultimate 32-bit/64-bit
- Microsoft® Windows 7 Professional or Ultimate 32-bit/64-bit
- Microsoft® Windows Server® 2003 Standard Edition SP1/SP2/R2 32-bit/64-bit
- Microsoft® Windows Server® 2003 Enterprise Edition SP1/SP2/R2 32-bit/64-bit
- Microsoft® Windows Server® 2008 Standard Edition SP2 32-bit/64-bit
- Microsoft® Windows Server® 2008 Enterprise Edition SP2 32-bit/64-bit
- Microsoft® Windows Server® 2008 Standard/ Enterprise Edition R2 32 64-bit

Databases

- SQL Server 2000 Enterprise SP4
- SQL Server 2005 Express/Standard/Enterprise SP2/SP3
- SQL Server 2008 Express/Standard/Enterprise

Browsers

- Internet Explorer 6, 7 or 8 (for Web Clients)

Virtualization

- VMWare ESXi/ESX 4.0

1- Camera counts are estimations. In order to determine which configuration is best suited for your application, please contact the Genetec Sales Engineering team at salesengineering@genetec.com.

2- A DVD+/- RW drive is recommended in order to export archived video sequences.

3- This medium-end configuration will allow users to view up to 25 H.264 cameras at 320x240/30fps or 14 H.264 cameras at 640x480/30fps.

4- This high-end configuration will allow users to view up to 32 Bosch or Verint MPEG-4 cameras at 4CIF/30fps at 2 Mbps or 32 H.264 cameras at 320x240/30fps or 25 H.264 cameras at 640x480/30fps.

5- Archivers may record up to 300 cameras depending on the server's specifications and the recording quality settings. In order to determine which configuration is best suited for your application, please contact the Genetec Sales Engineering team at salesengineering@genetec.com

6- Omnicast installation is not supported on a Windows 2003/2008 Server running a Domain Controller.

About Genetec

Genetec is a pioneer in the physical security and public safety industry and a global provider of world-class IP license plate recognition (LPR), video surveillance and access control 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, genetec.com.

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