

[ 2004 COMMERCIAL INSTALLATION OF THE YEAR ]

# The COMM Group UNLEASHES ITS Uncommon Skill



## COMMERCIAL/ INDUSTRIAL WINNER

### AT A GLANCE

**Company Name:** The COMM Group

**Owner:** ISR Solutions

**Location:** Pittsburgh

**Years in Business:** 7

**Number of Employees:** 70

**Number of Accounts:** 1,200

**Market Breakdown:** access control (15 percent); fire (10 percent); systems integration (40 percent); CCTV (10 percent); other (25 percent)

The COMM Group (TCG) is a designer and integrator of building systems and facilities networks that was formed in Pittsburgh in 1997 through the consolidation of three businesses: Pittsburgh Communications Corp., Netcomm Technologies Inc. and Wes Comm Inc. In 2002, BPS Systems Inc. became part of TCG, which opened another office in Akron, Ohio, in 2003. In March 2004, TCG was acquired by Chantilly, Va.-based ISR Solutions, a privately held electronic systems integrator.

TCG specializes in turnkey design, engineering, installation, documentation, maintenance and support services

in the areas of CCTV, access control, fire alarm, theatrical sound, telecommunications and data network systems. The company's major clients include the U.S. Postal Service, Pittsburgh Int'l Airport and Penn State University.

The Pittsburgh Public School District (PPS) can now also be included on that list thanks to the super job TCG did in meeting the needs of its Creative and Performing Arts School (CAPA).

### Operational, Ambient Features Help Integrator Land Job

Located in the heart of the Cultural District in Downtown Pittsburgh, CAPA is the PPS's newest "gem." The \$38 million, seven-story facility houses



**1.** The CAPA installation includes nine rack-mounted Lenel DVRs. Each one is capable of accepting 32 cameras.



**2.** It takes 10 Altronix power supplies to keep the system's 242 Pelco cameras up and running.



**3.** Cigarette Busters from Voice Products are mounted in all campus restrooms.



**4.** The COMM Group worked with electrical and design engineers to develop specific plans and drawings based on Lenel's access control system, the heart of which is seen here.



**5.** This Pelco matrix switcher is responsible for routing the hundreds of video signals generated by the large-scale CAPA surveillance system.



**6.** A locked security panel with an Arm/Disarm display resides above one of 17 HID proximity readers included in the project.

hundreds of students, staff and visitors entering its doors daily.

"This was a new school that was built in downtown Pittsburgh," explains Sales Engineer Mike Farrell. "The school itself is unusual for several reasons. First, it was made possible by donations by certain philanthropic sources. Second, the school is unique because it focuses on creative and performing arts. Third, it is located in a traditionally commercial high-rise building environment."

The challenge presented to TCG was to create an overall scheme incorporating design, installation and operations in accordance with PPS's comprehensive security plan, and be able to blend it all with the ambiance of the building.

"The most valuable of all the assets that needed to be protected by this

project were the school kids," adds Farrell. "In addition, the teachers, staff, and the building and its contents also had to be safeguarded."

Charles Urso, an electrical engineer with LLI Technologies and the end user's design representative, says, "The goal was simply to create a safer environment for the children of Pittsburgh. Protection of city property was a secondary goal."

With the intent of giving the job to the lowest bidder, CAPA awarded the project to TCG in January 2003. It didn't hurt that TCG had worked with Pittsburgh's public schools for a number of years.

"This was a bid job in which The COMM Group, which already had an existing business relationship with LLI and the customer, was contracted immediately," continues Urso. "This in-

staller was very helpful in delivering the technical side of this complex project."

A completion date was set for August 2003, before the start of school. TCG's portion of the project would wind up consuming more than 400 man-hours. The entire job totaled about \$1 million.

TCG's Pat Rorke, Michael Havey and Nick Simcic took on the installation and programming of the CCTV and access control systems. The fire alarm system was assigned to Michael Bieda for the design and engineering portion, while Doug Whitacre assumed responsibility for the installation and programming.

### School Project Incorporates a Multitude of Systems, Capabilities

Along with controlling access into the school through specified portals,

## 2004 COMMERCIAL INSTALLATION OF THE YEAR

7



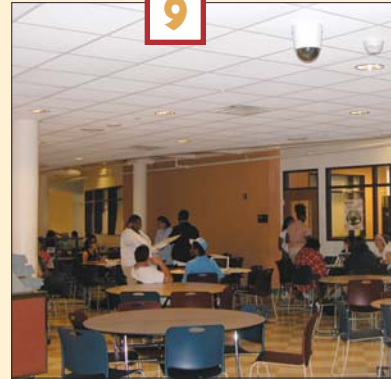
**7.** Pelco domed cameras, HID proximity readers and Aiphone intercoms are combined to provide security at garage entry points.

8



**8.** A total of four Pelco exterior PTZ domes were installed around the perimeter of the Creative and Performing Arts School.

9



**9.** The school's installation included three interior Pelco PTZ domed cameras. These cameras are called up via a graphical user interface to view a particular area whenever any of the systems' alarms are activated.

**10.** Several Pelco LCD monitors and a keyboard are located in the security command center room. They allow just two security guards to monitor and control the entire system.



10

112

Security Office

11

**11.** The security office entrance is outfitted with a HID proximity reader to keep personnel from being caught off-guard.

the plan involved monitoring exits through a number of other doors within the building, integration with a CCTV system, digital video recording, fire alarm peer-to-peer interfacing, cigarette deterrent interfacing and the use of a mobile wireless solution.

"Integration of the system was extremely important to the customer and made sense on a project of this size," contends Urso. "In particular, the camera and intrusion systems are useful in helping the city provide a safer environment for the children of Pittsburgh, as well as protect city property."

TCG worked with electrical and design engineers to develop specific plans and drawings based on Lenel's access system. The integrator incorporated ID credentialing, badge designing, alarm

monitoring, alarm maps, fire alarm, paging and video recording with PELCO's cameras and matrix switcher.

The system includes several PELCO LCD monitors and a keyboard located in the security command center room. This allows just two security guards to confidently monitor and control 15 HID proximity readers, 60 Sentrol door alarms, 50 Detection Systems motion detectors and 242 cameras located both in and outside of the facility.

See page 44 for a complete list of this installation's equipment.

### Alarms Displayed Via Graphic Map, Call Up Cameras

CAPA's top-of-the-line system is one not normally found within a public school.

The Lenel system is a common platform with a standard Ethernet network configuration. This allows for the implementation of several enhanced features in a modular format, such as a wide-area network (WAN) for remote monitoring of buildings throughout the school district and the ability to interface with a student attendance package using open database connectivity

"The district standardized on the Lenel/Pelco equipment for ease of operator interface, the ability for future expansion and upgrades, and the integration of multiple systems," says Farrell.

In a typical access control system, entry access to a facility is limited. The CAPA project called for a more unique solution in which exit activity

## 2004 COMMERCIAL INSTALLATION OF THE YEAR

needed to be controlled as well. Thus, the building is secured after-hours by way of arming/disarming the system with the HID proximity/keypad reader. The Lenel system is set up to also monitor cigarette detectors located in all restrooms.

When any of the systems' alarms are activated, it is displayed on a graphic map along with a camera call-up viewing the area. A page signal is immediately sent to the roaming security staff to identify the location of the alarm. The staff is also equipped with a mobile enterprise solution that allows wireless operation of the system, from a laptop or PDA, as if being in the command center.

### Time, Environment Are Among the Job's Main Obstacles

The CAPA system was installed to run seamlessly. All digital video recorders, cameras, intercoms, fire alarms and doors can be monitored at any given computer or work-station equipped with Lenel software. Video records of the previous school week can also be accessed at these stations.

Other unique aspects of the project include: only two guards are needed to monitor all activity on both the interior

and exterior of the building; Voice Products' Cigarette Buster system pages guards upon activation; when a person leaves the facility, the school's pan/tilt/zoom cameras zero-in and record images; and when a motion sensor alarm is activated, all lights in the school are instantly turned on to enable clear video photography.

The most challenging elements of the project were dealing with the strict timetable, customer's specific requirements, myriad of other people involved in building the new facility and the uniqueness of the structure itself.

"It was difficult to coordinate and work with all the different trades to complete the project by the start of the school year," affirms Farrell. "In addition, because it was a brand-new facility, we did not have school personnel who are familiar with the facility to assist us in programming all of the hot/trouble spots the security staff would need to see."

Urso adds, "This building has very limited real estate for installing systems. The owner's requirement to place all installation cabling inside conduit made for a more secure system but increased the pressure of dealing with the scant real estate."

### Happy Customer Enlists TCG for Entire School District

PPS was so pleased with the installation and operations of the CAPA systems that it contracted TCG to install the same security measures throughout some 90 other schools and sites within the district.

"The relationship in a project of this magnitude requires a strong communication line between the client, engineer, electrical contractor and ourselves," states Farrell. "With our industry technology advancing every day, the schools will also be implementing an IP camera solution and wireless remote access to the district's police cruisers."

At press time, 10 high schools had been completed and the remaining buildings were currently in the design process or undergoing installation. Winning an award for the CAPA installation was the icing on a very sweet cake.

"We were ecstatic to make the three finalists, let alone being singled out for the top honor," gushes Farrell. "We are hopeful that we can leverage the credibility a SAMMY Award brings when discussing our company's capabilities and system solutions. Undoubtedly, we would enter again!"

*(Continued on page 46.)*

## Creative and Performing Arts School Equipment List

Quantity	Manufacturer	Description	Quantity	Manufacturer	Description
1	Lenel	Server	3	Pelco	Elevator cameras
1	Lenel	Client	4	Pelco	Exterior PTZ domes
1	Lenel	Paging interface	3	Pelco	Interior PTZ domes
1	Lenel	E-mail interface	16	Pelco	Fixed domes
1	Lenel	Cerburus fire alarm interface	217	Pelco	Cameras
1	Lenel	Controller	1	Pelco	Matrix switcher
5	Lenel	Dual reader interface cards	1	Pelco	Code generator
4	Lenel	Single reader interface cards	3	Pelco	Keyboards
7	Lenel	Input modules	10	Pelco	Monitors
4	Lenel	Output modules	4	Pelco	Quad units
9	Lenel	32-camera DVRs	1	Pelco	Net
45	Lenel	Hard drives	1	HUB	Duress button
1	Eltron	Badging printer	3	Aiphone	Master intercoms
4	HID	Prox 5365 readers	6	Aiphone	Substation intercoms
11	HID	Prox 5455 readers	2	Voice Products	Cigarette Buster receivers
2	HID	Prox 5355 readers	28	Voice Products	Cigarette Buster transmitters
2	LED	Annunciators	1,500	Allied	Telesyn switches
59	Sentrol	1078 door contacts	1	Belkin	Switch
17	Sentrol	2505A door contacts			
1	Sentrol	2202A door contact			
50	Bosch Security	Motion detectors			
10	Altronix	CCTV power supplies			
2	GBC	Covert cameras			

