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SECURITY ELECTRONICS CONTRACTORS REPORT 2013

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2013 ANNUAL SECURITY ELECTRONICS CONTRACTORS LIST

	Company	Contact	Geographic Area Covered	Annual Revenue	Largest Contract in Past Year	Value of Jobs Under Contract	Completed Projects in Past Year
Annual Revenues \$21 Million and Above	Metrolplex Control Systems (MCS) San Antonio, Texas www.metroplex-control.com	Mark McDonald 210-495-5245	United States, International	\$43.6 Million	\$1.4 Million	\$48 Million	96
	Secure Control Systems Inc. San Antonio, Texas www.securecontrolsystems.com	Brian Mikiten 210-530-5245	United States, Mexico	\$28 Million	N/A	N/A	14
	Sierra Detention Systems Brighton, Colo. www.sierradetentionsystems.com	Meredith Berman 303-278-6879	United States	\$21 Million	\$28.3 Million	\$78.5 Million	23
Annual Revenues \$5 Million to \$19 Million	ECS/Trentech (Norment Security Group) Spokane, Wash. www.normentsecurity.com	David Beeler 317-796-6241	United States, International	\$19 Million	\$3 Million	\$19 Million	45
	Accurate Controls Inc. Ripon, Wis. www.accuratecontrols.com	TJ Rogers 920-748-6603	United States, International	\$17.5 Million	\$3.8 Million	\$28 Million	70
	Black Creek Integrated Systems Corp. Ironton, Ala. www.blackcreekisc.com	Randy Hill 205-949-9922	United States, International	\$10 Million	\$1.7 Million	\$7 Million	8
	South Western Communications Inc. Decatur, Ala. www.swcdec.com	Rick Holmes 256-351-2445	United States	\$10 Million	N/A	N/A	25
	CML RW Security Erie, Colo. www.cmlrw.com	J.J. Ramsey 303-704-6036	United States, International	Less than \$10 Million	Over \$1 Million	\$5 Million	12
	Com-Tec Security LLC Greenville, Wis. www.com-tecsecurity.com	Jeff Paulik 920-882-8856	United States, International	\$9.2 Million	\$1.5 Million	\$7.2 Million	19
	P2 ABC Controls Exton, Pa. www.p2abc.com	Nicholas Carman 610-524-7810	United States, International	\$8.2 Million	\$4.6 Million	\$5.2 Million	19
	ESI Tech Inc. Richmond, Va. www.esitechinc.com	Jeff Power 804-672-3223	East of Rocky Mountains	\$6 Million	\$3.7 Million	\$7 Million	20
	Southern Folger Detention Equipment Company San Antonio, Texas www.southernfolger.com	Jim Brown 210-533-1231	United States	\$5.3 Million	\$4.5 Million	\$17.4 Million	22
Annual Revenues Under \$5 Million	Unique Security Inc. Montgomery, Ala. www.uniquesecurityinc.com	Gary Hart 334-239-8343	United States, International	Less than \$5 Million	\$700,000	\$5 Million	6
	Simpson Security Systems Inc. Alexandria, La. www.simpsonsecurity.com	Keith Simpson 318-443-3391	United States	\$4.9 Million	\$2.3 Million	\$1.2 Million	15
	EO Integrated Systems Inc. Washington, Mich. www.eoisi.com	Donald M. Rochon 586-752-3200	United States	\$4 Million	\$920,000	\$9 Million	25
	Justice Systems Corporation Issaquah, Wash. www.justicesys.com	Paul Allyn 425-392-2328	Pacific Coast	\$4 Million	\$1.9 Million	\$6 Million	12
	Easter-Owens Arvada, Colo. www.easter-owens.com	Erica Easter 303-431-0111	North America	\$3 Million	\$853,000	\$1.2 Million	7

*Bulk of data for 2013 SEC List is based on information collected from 2012 records.

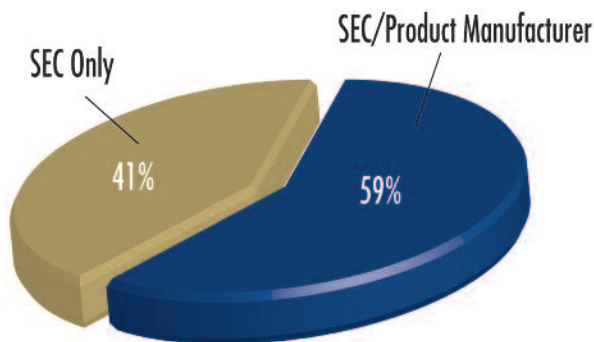
Number of Employees

1	Metrolplex Control Systems (MCS)	90
2	Sierra Detention Systems	75
3	Accurate Controls Inc.	58
4	Black Creek Integrated Systems Corp.	55
5	ECS/Trentech - Norment Security Group	48
6	Southern Folger Detention Equipment Company	48
7	Simpson Security Systems Inc.	40
8	Secure Control Systems Inc.	35
9	South Western Communications Inc.	30
10	Com-Tec Security LLC	25

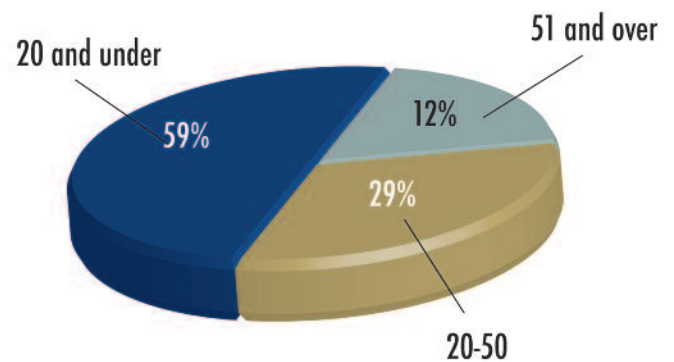
Value of Current Jobs Under Contract

1	Sierra Detention Systems	\$78.5 Million
2	Metrolplex Control Systems (MCS)	\$48 Million
3	Accurate Controls Inc.	\$28 Million
4	ECS/Trentech - Norment Security Group	\$19 Million
5	Southern Folger Detention Equipment Company	\$17.4 Million
6	EO Integrated Systems Inc.	\$9 Million
7	Com-Tec Security LLC	\$7.2 Million
8	Black Creek Integrated Systems Corp.	\$7 Million
9	ESI Tech Inc.	\$7 Million
10	Justice Systems Corporation	\$6 Million

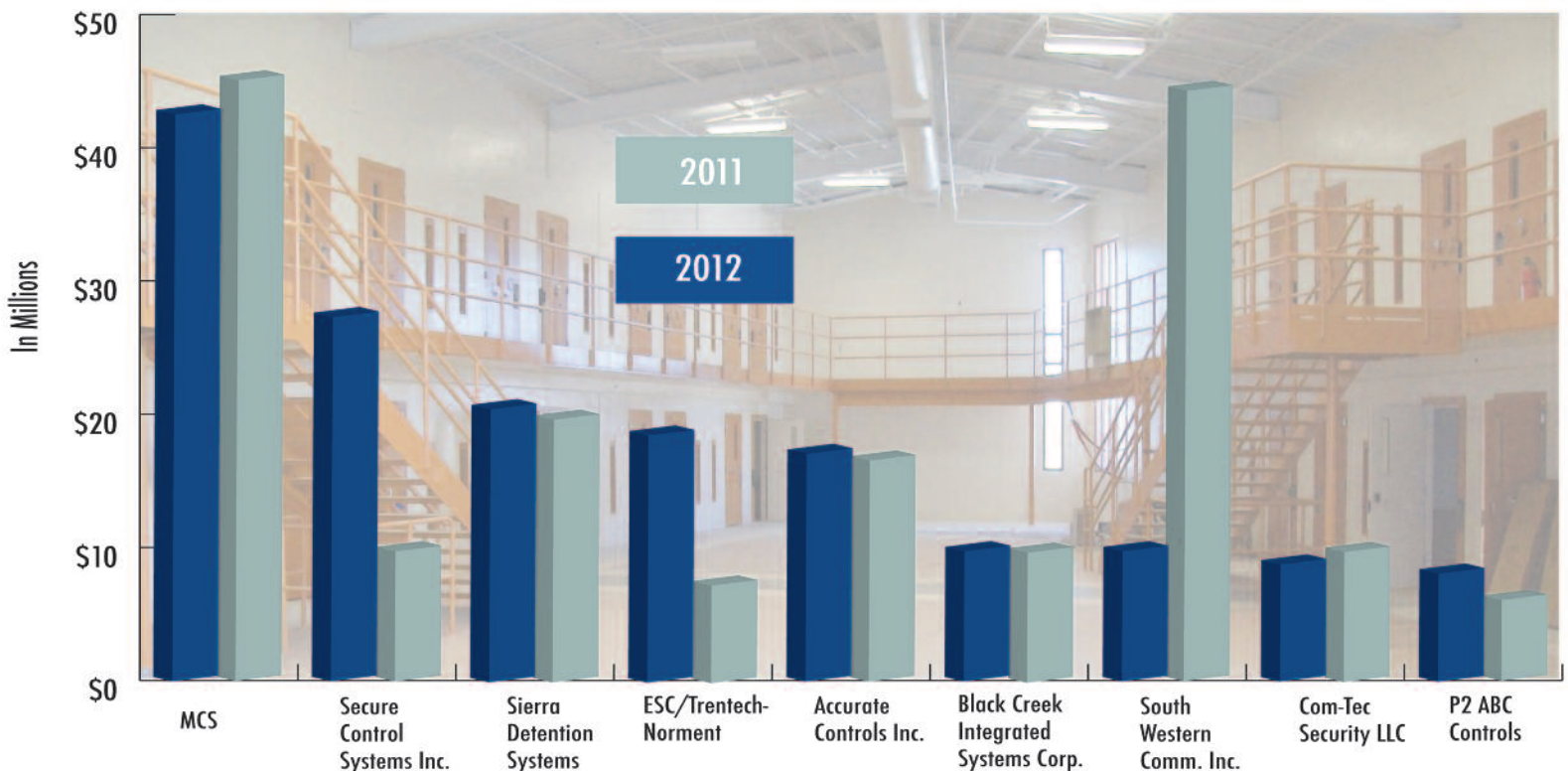
Type of Company



Number of Completed Projects



Annual Revenue



Upgrade of Security Electronic Systems

By Keith Summer

There has been a steady growth in the use of electronic security systems in detention facilities since the 1980s. While some agencies have deliberately avoided the technology, many agencies have embraced it to make more efficient use of available staff. Unfortunately, agencies sometimes take for granted the savings realized by the improved efficiency and don't plan for the replacement of these systems, including funding. Replacing security electronic systems is one of the most complex and challenging efforts that a detention facility will face, but that challenge is tame compared to losing a major component in the system and forcing the operation of doors by keys for an extended period. Programmable Logic Controllers, or PLCs, are the heart of most detention facility door control systems and operate so reliable that facility managers often become complacent. There are PLCs out there that have operated reliably since the 1980s and refurbished parts are available, although at commonly high costs. However, facilities often do not have backups of the PLC programs or the programming equipment to reload them. In this case, losing the PLC also means losing the program. It would be a long and expensive process to recover from this situation.



Summer

Life cycles for electronic security systems are 10 to 20 years, although we have seen equipment that has been in service for 30 years. Extending the life cycle of the equipment takes careful planning and proper funding. Maintenance staff must make aggressive efforts to keep spare parts available. Electronic equipment must be kept clean and cool. However, when spare parts are no longer available, it's time (or past time) to implement the replacement process.

The primary systems involved in detention electronic security systems are: PLCs; CCTV systems; intercom and overhead paging systems; card access systems; control panels (hard panels, or touchscreens, or other GUI); and perimeter intrusion detection systems.

Of these systems, the PLCs are the most critical since they are the heart of the door control system. Intercom and CCTV components that support the door control are equally important. The door control system has life safety implications for emergency egress as well as the obvious need to move staff

and inmates for the daily operation of the facility. The critical nature of these systems and the fact that they are functionally integrated makes them extremely difficult to replace.

If you are a facility manager, you may be cursing the architect and engineer who designed all of these electronic systems into your facility, only to have to rip them out and replace them every 15 years. The truth is that they had no realistic choice. The egress requirements in the codes promote remote release of doors, and the alternative for individual key release of doors is expensive and difficult to defend. And, let's not forget the benefits of the efficiencies and security the electronic door control has realized over the years of operation. Most PLC-based door control systems have been extremely reliable.

So if you have an old electronic security system that must be upgraded, what do you do? The good news is that there are a number of systems integration companies that do this type of work. Many are the same companies that did the original installations. With new construction diminished, they are regrouping and focusing on upgrade work. Consulting firms are changing their focus as well. There are hundreds of facilities across the United States that will soon need system replacements. Some may be long overdue.

The steps to a system upgrade are detailed throughout the assessment, design, procurement and construction phase sections discussed below.

Assessment

The assessment phase begins with locating floor plans and any documentation available on the existing systems. If

A successful electronic security system upgrade project takes planning, funding and the proper expertise.

there are no existing electronic CAD drawings of the floor plans, they will need to be developed prior to the design phase. Once the CAD floor plans are available, they will be useful for other purposes, including training and other renovation and upgrade work. Next, the consultant will go through the facility, especially equipment rooms and control rooms, to inventory system components to define the scope of the project, evaluate potential code issues, make recommendations and develop a budget. The assessment will also determine if the existing equipment rooms are adequate and

SECURITY EQUIPMENT

if new equipment rooms need to be developed utilizing other spaces (not that anyone has any unused rooms). Usually the equipment can be placed in existing equipment rooms, but the addition of digital video recording will require additional equipment rooms and cooling. The assessment should determine if the majority of the field devices, such as intercom stations, should be replaced. The assessment report should help the facility justify the urgency for funding the upgrades. The existing installation may not meet current codes. The upgrade work may be able to correct many of these issues, but if the problems are related to the types of wire installed in the conduit and cable tray, there may not be any reasonable means to bring this part of the installation up to current codes. It is usually not necessary to replace wire and cable to the existing field devices. It may also be appropriate to assess the condition of the existing electric locks during the assessment. If a large scale change-out of locking hardware is needed, it is best to perform this work along with the system upgrades.

Design

While funding is being pursued, it may be necessary to start the design phase. Most states will require a registered design professional for this task. It is important to define the project with drawings and specifications very much like the original construction documents. The design will confirm the adequacy of equipment rooms and control rooms and determine the existing pathways for wire and cable between the spaces. The design should also explore opportunities to pass control from a remote control room to a central control. Touchscreen technology makes this more viable than hard panels. Doors properly equipped with cameras and intercoms can be operated locally during the day and remotely at night. A good design effort should eliminate most of the guesswork for pricing by the system integrator and produce more competitive bidding. Properly executed, the design effort should more than pay for itself. The upgrade budget from the assessment phase should be refined in the design phase. It may make sense to develop bid alternates to make sure the project award makes the best use of the budget.

Procurement

It is essential that the procurement process ensures that the selected system integrator is qualified to perform the work. Since the system upgrade work will most likely be performed in phases in an operating detention facility, the contractor must be experienced with this type of work. The experience must include integration of IP video systems, when applicable. A pre-qualification process should be defined during the design process, including any licenses or certifications required by law. The selection process could be low-bid or based on multiple criteria including price, experience, local support, etc. It may also be appropriate to negotiate the terms with a preferred integrator based on the budget and design. Local procurement

regulations will dictate the options, but the capabilities of the integrator cannot be disregarded.

Construction Phase

The progress of the work prior to installation should be monitored by a thorough review of shop drawings and by factory demonstrations of the head-end equipment and control terminals. All of this equipment should be assembled, programmed, tested and demonstrated at the integrator's shop prior to shipping the equipment to the facility. There must be a plan for phasing of the work which considers how the inmates will be managed during the installation. It is best to remove inmates from the housings involved in the work, but since most of the work occurs in the equipment rooms much of the work can be performed while the inmates are locked down. Contingency plans for emergency egress should be evaluated. During the installation, the contractor must perform system testing as each phase is completed. The consultant should review the completed installation to verify the integrator has met the requirements of the design documents.

A successful electronic security system upgrade project takes planning, funding and the proper expertise. The entire process (including assessment, funding, design, fabrication, programming, installation and testing) could easily take two years, depending on the size of the facility. Start planning now if your systems are more than 10 years old. Until then, check up on maintenance support for the existing systems including spare parts, backup programs and maintenance training. Good luck!

Keith E. Summer, P.E. is the vice president of security electronics engineering at Buford Goff and Associates Inc. (BGA) and has 30 years of experience in electronic security systems. Keith holds a BSEE from Clemson University and is a member of ACA, IEEE, BICSI and NFPA. He has extensive experience in security electronic systems for justice facilities, including work with the Federal Bureau of Prisons in developing their technical design guidelines.

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Find the Precise Need, Then Find the Technology

By Meredith Berman

As an increasing amount of technology adapts into the correctional market, facilities at all levels are investigating the uses of crossover systems. In this progressive time, any procurement for these technologies should acutely determine the need of a facility and then find its technology pair. Exercising restraint in considering a single technology will be a cure-all for corrections-specific issues.

Some of these technologies, like virtual desktop integration (VDI), overextending JMSs, tablets and others, are perfectly fine technologies misapplied to the era or capability of some facilities. They are comparable to the first iteration of 3-D TVs for the home.

The technology was forward thinking and accessible, but ask the consumer to wear Clark Kent glasses for hours at a time and the concept unravels. The glasses are uncomfortable, they're oddly shaped and they're not intrinsic to the TV-watching experience. The same is true with the newest technology that reaches the corrections market. While a portion of facilities will find a new technology highly useful, others will spend time and money on it to discover that it didn't fit into their operational flow, and it didn't solve the problem it was intended to.

Sierra Detention Systems' Director of Product Development, PD Sims recently presented several points for owners and planners to consider when approaching new technology at the IDGA Prisons and Correctional Facilities conference in Washington, D.C. We have applied these principles in our customer education and share them in order to align expectations with what technology actually offers.

The most successful and simple approach to selecting



Berman

the right technology is to identify the cumbersome elements of a facility's operations and focus on solutions that meet that need directly.

To do this, an owner must first analyze the lacking areas in their safety and operational programs. The goal of the exercise is to shift the question from, "What technology is available?" to "Where are my operations most unmanageable?" The reason, very simply, is that the technology rarely meets the expectation of the owner.

A trending example: tablets. In 2012, 21 percent of U.S. adults owned at least one tablet — twice as many people from 2011, according to the Pew Research Center. As tablets make their entrance into the corrections marketplace, they are gradually replacing their predecessors, PDAs. While highly functional, PDAs are not nearly as robust as tablets.

A facility recently planned to replace all fixed computer stations in their pods to wireless tablet devices. The tablets provided the same functionality as a fixed unit, but no one considered the battery life of the tablets, which would expire before a full shift was completed. To date, there is no tablet with the capability to operate a facility with the battery life equal to one shift. The suggested compromise was a mixed system where both fixed stations and tablet devices control the pods.

Each facility is unique. Products, on the other hand, are developed to solve overarching problems. Inherently, this is a conflict with an owner's very specific needs. The owner is at risk of presupposing the technology will meet all of their needs, when it may have been designed to only fulfill a portion of them.

The selected technology is extensively capable, however, users may not require all that it was built to do. When this happens, the expectation and need, however powerful the technology, are not fully satisfied. A SEC can assist the owner and design team in fulfilling the need with the appropriate technology and integration.

Employing a SEC early on in the project prevents a failed product integration — one that fails because it's paid for, installed and left unused. In a government-focused industry under public scrutiny, each technology procurement has the responsibility of being well-analyzed, planned, and employed to bolster safety and control.

Securing Facilities in an Insecure Time

By Torrey Sims

Security Electronic Contractors (SECs) play a major role in the correctional industry. While the economy has not necessarily helped the business boom in recent years, the need for SECs is still prevalent. Correctional News recently sat down with some of the leading SECs to discuss the current state of the market and what the future may hold for some. David Beeler, vice president of Norment Electronics; PD Sims, director of product development for Sierra Detention; Bill Denton, general manager of Esitech; and Pat Hickok, engineering manager at Stanley Security Solutions' corrections department, all provided valuable industry knowledge regarding the SEC market.

Q: How long have you been involved with security electronics and what have you seen change in the market over these years?

Beeler: I've been specifically working with correctional electronics integration for 22 years. Historically, the security systems started out as door control systems consisting of hard-wired switches and relays. As soon as owners wanted the systems to have alarming, data logging or any intelligence then that dictated the need for Programmable Logic Controllers (PLCs). When computers and touchscreens came around they replaced the expensive hard graphic panels with much easier and more fully featured user interfaces, basically moving from a hardware platform to a software-based platform. Up to this point, security integrators have focused on integrating dissimilar hardware systems like intercom, lighting control, duress, watch tour, etc. What we're seeing now is the need to start integrating dissimilar software systems like inmate management, video visitation, scheduling, medical, officer tracking, etc.

Sims: I joined the SEC business in 2005. There have been several notable changes since then. The changes fall into two categories: technology and job process. Typically, the corrections industry has trailed the cutting-edge of technology by 10 to 15 years. Now, however, we see new and different technologies trickling into jails. One such technology is the use of tablet computers for door control. In job processes, I have seen an increasing amount of feature requirements and sophistication within specifications. As such, the industry has shifted from programming being primarily in the PLC for all logic, to more of a hybrid of Human Machine Interface (HMI) and PLC. All critical logic is still in the PLC, but the features required are adding more over-



Beeler



Sims



Denton



Hickok

head and customization to the computer software.

Denton: I have been in the electrical industry for 46 years. The first half I mostly focused on industrial power and control, the latter half I've been mainly involved with electronic control and monitoring of correctional and criminal justice facilities (i.e. electronic security controls). I think there are several notable milestones in the last two decades. The first major change involved retiring VCRs in favor of DVRs and NVRs. I think a benefit to the industry has been the swing toward open architecture and non-proprietary software and hardware systems. The specification of digital electronics (for CCTV and intercommunication) and reliance upon stable networks for security communication has been an asset.

Hickok: Stanley has been in the security industry for more than 83 years. Recent changes within the correctional electronic security sector include at-home video visitation and the migration to IP video systems as the norm.

Q: Currently, what is the biggest challenge for SECs?

Beeler: The biggest challenge I see for SECs is transitioning your work force from hardware-based expertise and experience to more software-based. Today's engineers need to have backgrounds in database programming, operating systems, SDK interfacing and especially network configuration/programming.

Sims: There seems to be a shortage of work in the market right now. This seems to be the biggest hurdle for SECs. Other than that, the hurdles going forward are much like they have been over the past couple years: how can we create a product more efficiently and more completely with margins that are shrinking?

Denton: I think one obstacle that knowledgeable security contractors face in this fast-changing industry is ignorance. It is hard to keep up with the products, methods, regulations, etc. Not just for the employees (technicians, engineers, estimators, PMs), but for everyone — top to bottom.

As an explanation: even if the security contractor is 'Mr. Perfect,' he is often relegated to bidding and complying with outdated specifications. General contractors who aren't 'jail-savvy' think these high-tech systems are installed as easily as fluorescent light fixtures. Owners don't understand the technology, therefore they think the touchscreen computer is the elixir for their problems....or the cause.

We adhere to the principle that good electronic security is automated, integrated and redundant. Good security in a cor-

rectional facility isn't about installing electronics. Good security is about proper operational procedures, adequate trained personnel and then using the electronics as a tool to aid the personnel in their work. A good electronic security system can reduce the facility's payroll if used properly. The automation creates safety features. Integration keeps operators from skipping a step. And all good security is redundant. Yet we occasionally see facilities with excellent electronics, but the personnel use two-way radios rather than the intercoms (which, if used, would call up a camera) and they are getting keys through the pass-through rather than having the touchscreen operator open a door because 'that's the way we've always done it.'

Hickok: Since technology is changing rapidly, one of the biggest challenges is balancing between true integrated solutions and meeting outdated specifications. True integration creates efficiencies and uses technology to help customers with policies. Creating an integrated solution is not just providing customers with equipment from certain manufacturers but providing a complete, comprehensive, integrated solution to meet the customer's needs.

more than a thousand controlled doors. Each of these facilities utilize digital cameras, digital intercoms, door controls, duress controls, paging, security networks, servers, multiple touchscreens, UPS systems, a searchable alarm database, highly intuitive graphic displays and other lesser security monitoring devices. The Richmond City Jail also utilizes video visitation.

Hickok: One of our recent projects for a customer in Grand Rapids, Mich., included both new construction and retrofitting a portion of the existing facility. Many new technologies were put in place such as at-home video visitation, IP video system, audio recording for their digital intercom system and a communications interface to the utility controls. All these technologies were seamlessly integrated together to allow the customer with easy and efficient access to effectively manage their facility.

Q: *Where do you see growth happening for SECs?*

Beeler: State and county is where we're seeing the most activity now, especially upgrades and repairs.

Sims: The longevity of the SECs seems to be heading

“There seems to be a shortage of work in the market right now,” said Sims.

“This seems to be the biggest hurdle for SECs. Other than that, the hurdles going forward are much like they have been over the past couple years: how can we create a product more efficiently and more completely with margins that are shrinking?”

Q: *Can you tell me about a project you are currently working on that highlights security electronics?*

Sims: We have just been awarded what we believe to be the largest security electronics retrofit job ever contracted in the country. Maricopa County in Phoenix, Ariz. has requested an upgrade of eight of their existing facilities. This is primarily an SEC opportunity as all of the security electronics in these facilities, including the head-end, HMIs, PLCs, cameras and recordings will be updated to the latest proven designs. In addition to this, we recently completed the Benner, Pa. prison campus. Some of our major active work includes the supermax prison ADX (Florence, Colo.), Wayne County (Detroit, Mich.), and Orleans Parish (New Orleans, La.).

Denton: Just about all of them, because we are not as competitive on non-integrated or single systems (such as 'I need a card access system' or 'install 40 cameras in the corridors'). We have recently completed the Navy Brig in Chesapeake, Va., a high-security military detention facility consisting of seven buildings. And we are currently working on the Richmond City Jail, a facility with

toward retrofitting facilities. Most of this work will be on the county level.

Denton: I personally believe that (for the most part) the age of big jails has concluded. I think states and counties will focus on maintaining and upgrading their existing control systems in facilities as money comes available. Adult correctional facilities usually get the most funding, but (in my experience) the juvenile facilities are becoming critically aged and many are in dire need of attention. I do see a current trend toward security in courthouses, but these buildings usually don't require a higher level of electronic control and monitoring and I'm uncertain how long this trend will last.

Hickok: Due to economic restraints, we've seen that facilities are choosing to remodel or retrofit their existing building as opposed to new construction. We have a lot of experience and ability in retrofit type of work.

Q: *Are there any new technologies that you are especially excited to see implemented in correctional facilities?*

Beeler: With modern wireless technologies and security encryptions, I would like to have more flexibility to use wireless IP devices, especially for the non-critical security portions of the systems. There could be substantial infrastructure savings not having to run wire all over a facility especially in existing facilities. There is a stigma that wireless can't be as secure as wired, and yet there have been studies that most security threats come from insiders who are already connected to the network.

Sims: There are always new technologies surfacing that will be great potential additions. The future of integrations is a single system that can report and manage any automated system within the jail. I would like to see specifications begin to incorporate this integration goal in writing.

Denton: New? Not exactly. I see improvements in technologies that we have worked with for a few years. I've already mentioned a few, but I think a greater reliance on networks and the usage of media (i.e. fiber optics) has begun because of improvements in these arenas.

Hickok: There are continual changes in video solutions, storage options, video visitation, general device migration to IP and biometric options. One such biometric option is EyeLock iris identity authentication. Within the biometrics space, iris identity authentication has emerged as the most accurate (second only to DNA) and most commercially viable technology available. With a false accept rate ratio of 1 to 300 million for a single eye, this technology can be used in many different appli-

cations for securing identity confirmation such as access control to secure locations, booking and release, pharmaceutical distribution, or mustering. Since we have the expertise and certifications required for the different technology platforms, we pursue new technologies and solutions with a passion.

Q: *What does the future look like for your company and SECs in general?*

Beeler: At this point I'm not sure what to say other than we are coming into 2013 very strong with current work and expect it to be another good year.

Sims: Our future is centered in technology. Where technology leads, we will be. Generally speaking, our integration platform is capable of far more than door control. I expect to see us and other SECs providing integrations that extend beyond door control and physical security.

Denton: This question came to me on the day that the President signed an order to cut \$85 billion in spending, so maybe I'm a little hesitant to be bubbly. I think that those firms who are currently saddled with debt will find it hard to keep their noses out of the water. The rest of us will have to dog paddle for a while, and feel blessed for the slightly profitable work that we latch on to.

Hickok: We believe the outlook is exciting for Stanley Security Solutions since we have a proven track record of providing and delivering a truly integrated solution for correctional facilities. ■



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