Ask several people in the fire alarm industry how 2014 was and you will get answers that range from “worse” to “wonderful” to “back to flat.” This may seem strange until you realize that, unlike the video, access control and alarm markets, the fire alarm industry is a stable, mature and almost entirely code-driven market that relies heavily on new or retrofit construction for business.

But that doesn’t mean there is nothing to get excited about: quite the contrary.

The past several years have not been too good for the fire market. Now, between the NFPA 72 2013 edition making several significant changes or additions to the code, the continued march away from “plain old telephone systems” (POTS), and the introduction to the market of some time- and money-saving technologies, many in the industry are very hopeful about the prospects for the future.

“2014 was significantly better than 2013,” says integrator Brent Dusenberry, director of operations, Standard Electronics, Santee, Calif. “We were actually excited for ‘14. It was a real turn around. We noticed we bid a lot more jobs and the average contract bid increased. Those two things are a telling story for us about what is happening in the market.”

He acknowledges, however, that the 2014 numbers were not a record breaking year, but rather a good year that returned them to pre-downturn numbers. “Compared to the past three years it was a great year. I’ll take a return to where we were any day over the downturn.”

Steven P. Lewis, SET, CFPS, senior account executive for integrator RFI Communications & Security Systems, San Jose, Calif., agrees. “Business in 2014 was much better than in 2013. We saw a lot of construction going on.”

Integrator Ken Hoffmann, CEO, DynaFire Inc., Casselberry, Fla., saw impressive numbers. “Our construction business last year ended up about 65 percent greater than 2008. We went from $4 million to $14 million in 2014.”

SDM’s 2015 Industry Forecast Study mirrors this optimism. SDM’s readers were contacted in the fall 2014 about their experience in 2014 and expectations for 2015. Almost three-fourths of respondents (see chart on this page.) reported good or very good/excellent sales in 2014, and 16 percent more reporting very good/excellent sales over 2013. However, looking at 2015, there was more
of a split, with nearly as many respondents indicating they expect “fair” or “poor” sales as those anticipating “excellent” sales. (See chart, page 72.)

Tim Snow, general manager, Copper State Fire Protection, Phoenix, is one of the 2015 optimists. “We expect to see a 5 percent to 8 percent increase in sales for 2015 based on a strong economy, which is promoting new buildings, and several retrofit applications due to degradation of fire alarm systems installed over 20 year ago.”

Lewis agrees. “Many fire alarm control panels now in use have become obsolete, as in some cases these panels are 20-plus years old, so we are working with our customers to initiate head-end upgrades for many of these systems.”

Common themes among those integrators reporting the best numbers were a location in an area adopting some of the more recent NFPA 72 versions; selling emergency/mass communications; and a presence in markets such as multifamily housing, schools and universities. On the manufacturer side, many have new product lines or offerings that fit nicely into these markets and easily solve the code issues.

“2014 was a good year for the fire industry in general,” says Brian O’Mahoney, senior director of fire products, Siemens Building Technologies Division, Buffalo Grove, Ill. “The economic situation has improved. We are seeing projects that were delayed over the past few years being freed up. And it doesn’t hurt that we have a reasonably new portfolio. There is a lot of interest from building owners in terms of technology.”

Tom Minerich, vice president of sales for the U.S. at Mircom in Toronto, says the economy is doing slightly better than it was, adding that his company is consistently up 15 percent year over year. “The reality is younger people aren’t buying single-family homes. They are buying condos or apartments. Add to that a large demographic of older people looking to downsize and you potentially have 2.5 million people moving into condos.”

In fact, an IBISWorld market research report on apartment and condominium construction found that segment to have experienced one of the fastest recoveries among residential construction industries: From 2010 to 2015 the segment grew 14.3 percent.

Business was booming at NAPCO. “We did very well in 2014,” says Brandt Phillips, director

All across the security world mobile apps are taking the industry by storm. It is rare to find a security manufacturer today that doesn’t offer an app. The fire alarm world, however, is slower to adopt that for one critical reason: code doesn’t allow any interaction with the fire panel from outside the premises. That doesn’t mean there isn’t a place for mobile apps in fire, however.

“In buildings under normal circumstances you are never interfacing with the fire alarm system,” says Bergen Protective Systems’ Joseph Cioffi. “I think that as mobile and controlling systems via apps becomes much more accepted or adopted there will be a desire to do that with fire systems,” says Mark Hillenburg of DMP. “It is currently prohibited by code. But I think we may see that loosen over the next few years as it becomes the norm in other areas.”

Richard Conner, Fire-Lite Alarms, Silent Knight and Honeywell sees mobile apps coming into play fairly soon. “Our focus with apps has been the integrator,” says Brian O’Mahoney, Siemens Building Technologies Division. “We provide them as a service tool for our dealers to help them provide better service to their customers.” He thinks the place for apps might start as more of a benefit to the integrator than the end user.

Frank Soehnlein of STI agrees. “I was an integrator for a while. There are people walking those buildings. How do you get information to them? We used to pick up the radio. Now you shoot them a text and it is instantaneous. Our industry is waking up to that more and more. There are a lot of new players on the block that are into all this. They will drive things like remote annunciation through mobile devices or alerting schools or students of a lockdown. The key to mobile communication is the closest person can react.”

Is There an App for That?
of sales for commercial fire and burglary products, NAPCO Security Technologies, Amityville, N.Y. “We are probably up between 100 and 150 percent growth in the fire products world.”

IBISWorld Fire & Smoke Alarm Manufacturing Research Report puts the average annual growth rate of the fire market at 3.5 percent between 2010 and 2015, a number Richard Conner, director of marketing at Fire-Lite Alarms, Silent Knight and Honeywell, Northford, Conn., says his company well outpaced. “We launched new products or technologies in the past couple of years that help integrators comply with new code requirements or offer better, improved versions of a previous product. This has helped us grow and get attention from the market.”

The consistency of the market itself can be a good thing, adds Mark Hillenburg, executive director of marketing, DMP, Springfield, Mo. “This market doesn’t really move by whim or design. That is good. It creates a lot of stability in the requirements for fire alarm systems and allows for a market that is good to work in.”

**ALL ABOUT THE CODE**

While the economy is always a key indicator for an industry like fire alarms, the other big mover for this market is codes.

There are multiple codes and standards that affect the fire market — from the International Building Code (IBC) to UL to various NFPA codes. But the “gold standard” is NFPA 72, the National Fire Alarm and Signaling Code. The latest edition of this code was 2013.

“NFPA has made some good, smart changes in the last few years, including communications options,” Hillenburg says. “One thing that is always of interest to me is that local municipalities are not required to adopt newer code until they are ready. That keeps fire a bit of a ‘patchwork quilt’ of requirements around the country.”

These codes generally either enable an integrator to do something that was restrictive before or require them to do something they didn’t do before, Conner explains. “One of the major changes between 2010 and 2013 was the supervision time for alternative communications. Codes were ‘relaxed’ a little in 2013, so as jurisdictions adopt that, it will enable dealers to go to alternative communications because it is not as burdensome.”

NFPA 13 made several changes that will potentially impact an integrator’s opportunity for business. Besides the communication paths, there are regulations for carbon monoxide detectors and low-frequency sounders as well as upcoming recommendations on emergency communications.

“Right now there are more than 30 states that have enacted some kind of carbon monoxide legislation where if you have a fossil-fuel appliance in the building you have to have CO detection in the building,” says Jack McNamara, fire product marketing manager, Bosch Security Systems Inc., Fairport, N.Y. “CO legislation is gathering speed across the country.”

A new requirement for a low-frequency 520 Hz tone for sounders in sleeping areas is also having an impact on sales.

“For locations complying with the 2012 edition of the IBC, which references the 2010 edition of NFPA 72, there are new requirements for how to alert sleeping individuals,” says Jackie Lorenty, marketing leader, System Sensor, Fire-Lite, Silent Knight IntelliKnight, and Honeywell Power Products for Honeywell. “Effective January 1, 2014, all new commercial sleeping areas that require an audible device in the space must produce an alarm tone at a lower frequency, centered around 520 Hz.”

Many states are starting to adopt this in anything with sleeping quarters, says John Gallo, product manager with fire products, Mircom. Mircom and other manufacturers are capitalizing on both of these requirements by combining a CO and low-frequency sounder into one product. These changes are exciting to manufacturers and integrators alike.
“In New Jersey, where we operate, they will be adopting the new NFPA codes,” says Joseph Cioffi, vice president, Bergen Protective Systems Inc., Englewood Cliffs, N.J. “That will bring more requirements for the types of buildings we are doing, specifically for low-frequency sounders in sleeping rooms.” Bergen does significant business with the multi-occupancy mid-rise rental market.

NFPA 72 is adopted at the state level in 14 states. California adopts its own code, based on NFPA 72 and the IBC. California was one of the first to adopt its version NFPA 72 2013, making integrators in that state much more likely to report a rosy financial picture.

“CO came into that code, as well as the push to get rid of telephone lines,” Dusenberry says. “A nice service piece for us is converting clients to cellular.”

Chris Wilhelm, executive director of construction, Tech Electronics, St. Louis, is one integrator who reported “flat” sales in 2014. “Obviously Missouri as a whole is not on NFPA 72 2013,” he says. “Just one out of 111 jurisdictions is on the new code. Call me a year from now and it will be a vastly different story. The way we monitor fire alarms will be major. We will have to go to IP or GSM/cellular. That is getting ready to be earth-shattering in the industry. Up until now, code allowed you to do a lot of things. In 2013 it is no longer the primary means of communication. CO is another thing that is coming, along with low-frequency sounders. There are a lot of big changes in 2013 that will cause the market to change.”

Some manufacturers and integrators have been surprised by how quickly certain areas and AHJs are adopting or requiring certain elements from the latest code.

“In Texas there are three or five significant cities that have already adopted 2013,” Phillips says. “Personally I have seen less discussion leading up to the change. The city of Austin said, ‘We are all following 2013’ and we all said, ‘What?’ Where was the discussion or notice?

“We are also seeing the interpretation of codes change dramatically. In a lot of areas, AHJs are coming into older facilities that are grandfathered in and saying there is no more of that. The time has come and gone. A huge external influence increasing our sales is the ability to go into those historic buildings and add protection to meet requirements.”

O’Mahoney has seen this in projects as well, particularly with low-frequency sounders. “It seems to have gotten through to the right folks, whether it is required yet or not. There are numerous change orders coming. The simple conclusion is that AHJs are becoming better educated and a little more open to adopting new and better technology for life safety.”

While mass notification/emergency communication is not required by code yet, NFPA is still having an influence. Starting in 2010, NFPA added chapter 24 for mass notification. In 2013 it is still optional, but if a jurisdiction does decide to implement it, they need to follow the guidelines and recommendations.

“In the 2013 version we see more discussion around the term ‘intelligible notification,’” says Jamie Underwood, director of marketing communications, Alertus Technologies, Beltsville, Md. “That is pretty primary for us.”

Kathleen Almand, vice president of research, NFPA, Quincy, Mass., says emergency communication will play an even bigger role in the next version of NFPA 72. The 2016 version is due to be voted on this summer. “We are doing a large project on emergency communication strategies for buildings, including voice signaling and what are effective messages in terms of human behavior,” she says. “It will be adopted as an annex to the 2016 fire alarm code.”

MOVING PAST POTS
It is not a matter of if but when. Phone lines are going away in the fire alarm industry. What does that mean
for integrators and manufacturers? “For us, we can now provide a wireless mesh network solution to our customers to ensure their fire alarm systems have a reliable method to communicate in the future,” RFI’s Lewis says. “While code is driving this change, RFI is also being proactive. We are seeing a lot of activity in the RMR side with mesh radio networks. We recently installed a network for an entire school system.”

Market Challenges

While there is much to be excited about in the fire market, there are also some caveats. In SDM’s 2015 Industry Forecast Study, less than half expected a positive change in equipment spending in 2015. Of those, only 16 percent predicted a rise of more than 10 percent.

“The economy is always looming,” says integrator Joseph Cioffi, Bergen Protective Systems. “Repairs will be made and upgrades done as needed, but there is still a small amount of hesitation with existing building owners when it comes to investing in new or upgrading systems.”

Steven Lewis, RFI Communications & Security Systems, has seen a number of regional low-voltage integrators getting out of the market or being restructured. “It is a tough market,” he says.

The economic downturn also brought a returning player to the fire market: the electrical contractor. “The bigger trend is that we are now finding a good number of electrical contractors starting to get into the fire/life safety industry. It is a difficult business model to sustain without heavy investment in service after the sale, not to mention the extensive training and regulatory requirements. Every day in the field I see unqualified people who do not understand the code selling and installing fire systems,” Lewis describes.

STI’s Frank Soehnlein adds, “Electrical contractors are a large enough block with the government that they have forced their way into the industry and they don’t even need to be licensed. In some states like Louisiana the electrical contractor must be supervised by a manufacturer, and some are courting this business. It doesn’t leave as big a piece for the integrators.”

This is a problem for some more than others. “The biggest challenge for us is companies that come into the industry and buy jobs,” says Chris Wilhelm of Tech Electronics. “There has been a lot of unemployment in the ranks of electricians and they are going after one-offs. Then they walk away after that project when they realize it is not as lucrative as they thought. In a tighter market that is a big threat.”

Wayne Schricker, sales manager, SMG Security Systems Inc., Elk Grove Village, Ill., has seen this trend as well, but says the threat for his company is tempered by the fact that they are a union shop. “We are able to integrate with the general and electrical contractors on the job. Many electrical contractors are getting into the fire alarm business and we saw a lot of business from the past go away, mainly in new construction. However, we have been able to align ourselves with the general contractors, plus we have the backing of the developers to get this work. Most of this work requires union electricians.”

The biggest challenge Brent Dusenberry of Standard Electronics sees for his company is simply differentiating themselves. “I think everyone’s competition has gotten smarter. We are all getting very similar. The manufacturers are getting similar. There is less differentiation between the brands and fewer things that are unique. I don’t have a real advantage in what I can do differently than my competitor. Everyone has touch screens. There is less that makes one panel more unique than the next. When I ask a room full of integrators ‘How do you differentiate yourselves?’ the room usually goes silent.”

Margaret Eckel, vice president, comptroller, Briscoe Protective Systems Inc., Centereach, N.Y., agrees. “Fire alarm systems are very boring. They are red boxes and the AHJs dictate the system to be installed. We try and provide the best customer service possible and to develop relationships to help us stand out from other ‘red box’ providers.”
The communications changes being imparted on the industry as a whole has been the largest contributing factor to our growth,” adds John Mil lions, vice president – sales, North America for AES. “Our partners are capturing the RMR that was formerly being paid to third-party service providers.”

A similar effect is being felt on the cellular market.

“Cellular/GSM communication is attractive to clients,” says Dean Belisle, president, ACT NOW ALARM Services Inc., Clinton Township, Mich. “It saves them money and reduces headaches.”

NAPCO is releasing a new sole path fire communicator designed to meet the cellular requirements, Phillips says. “My interpretation of NFPA 2013 is that dual-line dialers are only to be used with express permission from the AHJ and what I am hearing discussed for 2016 seems that it will change to only one line being permitted to be a phone line if you are using POTS. The other must be an alternate communication.

“Integrators are finding cellular reduces both issues and also labor and installation. It is a great opportunity to walk into any fire alarm in the country, slap on a box next to it and walk out the door.”

While many integrators are jumping on alternate communication, others still have to wait, for the most part, due to code. Versions 2010 and 2013 are open to it, but earlier versions make it decidedly more complicated. John Sam, sales design and engineering, Barnum Engineered Systems Inc., Derby, Conn., found the company had to apply for a modification to the fire code to allow it to install Internet communications for fire in a recent housing authority installation. “As long as it is in those codes, they are very likely to grant a modification and allow you to install them.” Most of their installations still use POTS lines, he adds.

No one knows for sure whether one alternative technology or another will eventually “win,” but the likelihood is there will be three viable alternatives for the foreseeable future. “The dust is settling on what the standard will be, whether that is radio, cellular or IP,” says Craig Summers, national sales manager, fire/security division, Potter Electric Signal Company LLC, St. Louis. “We specialize in IP because every building has an Internet connection and the costs are less than cellular. It’s very quick. It can send a signal from the panel to central station in a second or two.”

EMERGENCY COMMUNICATION GROWTH

While emergency communications is starting to be talked about in code, it is not mandated anywhere except in government applications. Yet it is a big seller in the fire industry, particularly in education and campus environments. One of the reasons has to do with highly publicized tragedies, from school shootings to the Boston Marathon bombing.

“There is more awareness around mass notification systems, particularly given recent news events,” Bergen’s Cioffi says.

Frank Soehnlein, sales team leader, Safety Technology Inc. (STI), Waterford, Mich., estimates that emergency communications alone has grown about 10 percent in just the past couple of years — impressive in a time period where the rest of the fire industry was hurting.

“Emergency communications percentage-wise has higher growth, but they are starting off from a much smaller base: If we received requests for emergency communications once a month previously, it is now a couple of times per week,” Conner adds.

“In today’s world, the increasing demand for clear and intelligible voice messages that communicate what to do in an emergency has shifted from horn-based systems to voice-based speaker systems, which leads us to growth in mass notification,” says Ted Milburn, vice president of marketing, life safety and mass notification solutions, Eaton, Cleveland, Ohio. “Mass notification has merged with indoor
Wireless devices such as smoke detectors are a big opportunity for integrators to revisit bids that were over budget previously or attract the retrofit market.

Perhaps because it has not come about as an outgrowth of code requirements, Summers calls mass notification the “Wild West” in terms of defining it.

Dusenberry defines it this way: “Voice is emergency communication, typically live announcements to get out of a building. Mass notification is that on steroids, including text messaging, computer pop-ups and textual signs.”

Integrators and manufacturers alike are investigating this area of opportunity. Mircom, for example, just recently purchased Metis, a company that specializes in campus notification systems. “We will be using a lot of that technology to get further into the mass notification marketplace,” Minerich says.

“Mass notification and emergency communication is where it is at,” says Tech Electronics’ Wilhelm. “That is discretionary money that is considered ‘security.’ If you are trying to upgrade a fire alarm system in tough times it can be pretty hard. But if you are able to tie in mass notification, the budget might be there.”

Ryan Ockuly, national sales director, Alertus Technologies, has seen a huge uptick in interest in mass notification recently. “Maybe two years ago organizations were thinking about it. Within the last 12 to 18 months companies have actually come up with purchase plans. Instead of just talking about mass notification they are actually implementing projects.”

### Wireless Options Increase

Several manufacturers in recent years have introduced wireless sensors, both for residential and commercial applications. While the technology isn’t quite there for all aspects of fire — strobes being a primary example — the products that are available are making both installation and sales easier for the integrator.

“Wireless initiation devices for commercial fire are huge,” DMP’s Hillenburg says. “In the near future I think we will see wireless signaling devices. That will change the complexity of installing fire systems, especially in the types of buildings where wireless is well suited. Anything less than 50,000 to 80,000 square feet will be transformed by wireless fire systems.”

ELK Products, Connelly Springs, N.C., has a line of wireless detectors for the residential market. “A lot of installers are ready and willing to adopt wireless solutions,” says Amy Strickland, marketing design manager for ELK Products.

In any segment of the security and fire market, wireless technologies make life easier on installers. “Wireless technologies enable dealers to do installations faster and lower their cost to service,” Conner says. “For end users it helps them protect areas they weren’t able to easily protect before, preserve aesthetics and have a nicer, cleaner installation.”

Dusenberry has done a fair amount of wireless,
Integrated Fire Panels – Yes or No?

Depending on who you ask, integrated fire panels are okay — or not. Some areas allow them and others don’t. But integration with software is generally okay.

“The AHJs in the fire end of the business do not like everything bundled; they will allow the end user to use software that will integrate, but they typically like to keep the fire system separate,” says John Sam, Barnum Engineered Systems Inc.

“We typically see a lot of code officials that like to see the fire alarm separate,” says Bergen Protective Systems’ Joseph Cioffi.

Tom Minerich of Mircom says it is regional. “You can’t compromise life safety. The one thing we see in the U.S. is smaller fire alarm panels that have both fire and security. It is accepted in some locations and some states don’t allow them at all. For us it is more about the GUI and getting that information to the individual.” Mircom offers a common communication platform to allow buildings to be managed from a single point, but the systems themselves stay independent.

There is a lot of misperception in the industry about this issue, Brandt Phillips, NAPCO Security Technologies, says. “UL 864 9th edition was created because some manufacturers pulled out of the integrated panel world. There is still a large base that thinks that combo systems are a violation of code. The reality is they aren’t. The requirements for those systems have changed. Even in California the state fire marshal accepts properly designed and installed integrated systems.”

Chris Wilhelm, Tech Electronics, thinks more integration is coming. “Fire will start to be more integrated as a whole. There will be more riding on that platform whether it is building operations or nurse call. They will monitor the status of the panels. You have to pick one system as a single source platform for future security and fire paging and fire makes sense because it is supervised and inspected. That is my prediction.”

he says. “As new wireless comes out it becomes even more attractive. We have had large projects where we have given a budgetary number to a customer and they gasped because they couldn’t afford it. Now we are going back to them and saying if we don’t have to run a bunch of wire we can probably fit into a budget that is more acceptable to them. It can open up opportunities we previously lost or even ones we don’t know about yet. The retrofit market is where it will really shine. As soon as a strobe that is wireless comes to market, the gloves will be off. But in the meantime we are getting even more attention with wireless.”

A little surprisingly, the AHJs are on board with wireless as well. “Now that wireless is becoming very affordable, stable and easy to work with, many AHJs are concluding that they can very easily add smoke detectors or pull stations without causing a huge financial issue for the business owner,” Phillips says.

Like Mircom on the emergency communication side, Tyco recently acquired CWSI (Commercial Wireless Systems Inc.) because they see tremendous potential in that technology and market, says Raj Arora, PE, general manager, fire detection products, Tyco Fire Protection Products, Lansdale, Pa.

“We plan to invest and exploit the labor savings and aesthetics associated with wireless. When a system just dies, a building owner hasn’t budgeted for that upgrade so the retrofit is a very price-sensitive sale. If we have a labor-saving technology and Tyco or our dealer is the existing service provider they have a lot of trust in, it is easy to win out on those projects.”

Siemens’ O’Mahoney sees all of these technologies as the key to success for integrators going forward. “When there is a downturn in construction, everybody’s prices get sharp. The companies that have done the best have a balanced business with service — one of the tried-and-true ways to weather economic ups and downs. But those that can differentiate themselves further by having a lower total installed cost or using technology to reduce the price to their end users have an extra advantage. They can reduce their own costs to be more efficient with technology that is code compliant.” (See "Selling the Opportunity" online for more sales strategies.)