



The Mulvaney Pipeline

Mulvaney
MECHANICAL, INC.
Mechanical Contractors
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Cyber risk: Why Cyber Security Is Important

We live in an increasingly networked world, from personal banking to government infrastructure. Protecting those networks is no longer optional. Cyber risk is now firmly at the top of the international agenda as high-profile breaches raise fears that hack attacks and other security failures could endanger the global economy. Cyber crime costs the global economy over \$400 billion per year. It's been reported that in 2013, about 3,000 companies in the United States had their systems compromised by criminals. High-profile US retailers Target and Home Depot were among many organizations that lost customer data and credit card information. In other companies, cyber criminals stole money from accounts, carried out industrial espionage and in some cases even took over company systems and demanded ransom money to unlock them. Most cyber crime incidents go unreported, and few companies come forward with information on their losses. That is not surprising given the risk to an organization's reputation and the prospect of legal action against those that own up to cyber crime. Few of the biggest cyber criminals have been caught—many have yet to be identified. Cyber crime is only likely to increase, despite the best efforts of government agencies and cyber security experts. Its growth is being driven by the expanding number of services available online and the increasing sophistication of cyber criminals who are engaged in a cat-and-mouse game with security experts. Countering cyber risk is difficult and costly. US companies are required to disclose the potential risks associated with cyber attacks and any contingent liabilities or asserted claims related to prior breaches. In sum, a failure to make adequate disclosures can lead to additional liability in the event of a cyber attack. There is no shortage of advice available to organizations to help them assess risks and develop suitable plans to counter them. Governments around the world are developing cyber security guidelines. The critical first step is to establish an information risk management regime that identifies the security risks it faces and the policy for dealing with them. Businesses should protect their information and communications technology by adopting standard security measures and managing how the systems are configured and used. They should also disable unnecessary functions and keep security patches up to date with programs that are designed for Malware protection. Businesses should not only have policies that cover email, web browsing and the use of personal devices, but also install antivirus software and regularly scan for malware.

Rise of the Robots

Construction Robotics (CR) was established with the goal of advancing construction through the use of robotics, automation and the same principles used in manufacturing. Currently, robots are being used primarily in manufacturing activities. Particularly automotive and consumer electronics (approximately 40 percent and 20 percent of installations, respectively) - with the United States trailing both Japan and Germany. However, the medical field is using surgical robots routinely in minimally invasive procedures and medical experts strongly believe autonomous robot surgeons will actually improve patient outcomes. There are true robots doing off-site construction in factory and warehouse settings and engineers are developing robots to perform demolition work, assembly tasks, etc. Bringing autonomous machines onto the jobsite, where conditions are seldom neat, even, or consistent, is the big challenge. The chief piece of hardware, the robotic arm, has been commonplace in industrial manufacturing for years. Robotic arms mounted on caterpillar tracks, designed for demolition work, as of now are really just remote controlled systems, with a human actively commanding the operations. The robots of the construction industry possess some of the defining properties of a true robot: they are autonomous, can respond to their environment, and make decisions about their actions. They can perform some of the same functions that humans can, as well as some that humans shouldn't! SAM - short for semi-automated mason - is a robotic bricklayer being used to increase productivity as it works with human masons. In this human-robot team, the robot is responsible for the more routine tasks: picking up bricks, applying mortar, and placing them in their designated location. A human handles the more nuanced activities, like setting up the worksite, laying bricks in tricky areas, such as corners, and handling aesthetic details, like cleaning up excess mortar. Another fast growing technology in construction are the use of drones. In addition to or instead of men in high-visibility jackets and hard hats, there are now drones buzzing overhead. The drones give a bird's-eye view of a site and provide real time updates on the job progress. No one actually knows how the use of robots will affect jobs, but it will be interesting to see the effects on the construction industry in 10 years.

THE MOON BY THE NUMBERS

- 238,858 - number of miles (average) the moon is from Earth
- 2,160 - number of miles in diameter the moon is
- 708 - the length of day on the moon (in hours)
- 29.5 - number of days it takes the moon to orbit the Earth
- 135 - number of days to travel to the moon (by car at 70mph)
- 3 - number of days to travel to the moon (by Apollo 11)



Fun Facts About the Holidays

- Halloween is the second-most commercial American holiday of the year (Christmas is the first)
- Samhainophobia Is A Fear Of Halloween
- Going shopping? Not if you're a plumber. Black Friday is the busiest day of the year for them. After all, someone has to clean up after household guests who "overwhelm the system."
- Thanksgiving is the reason for TV dinners! In 1953, Swanson had so much extra frozen turkeys that a salesman told them they should package it onto aluminum trays with other sides like sweet potatoes - and the first TV dinner was born!
- Christmas supposedly marks the birth of Jesus Christ on December 25. But there is no mention of December 25 in the Bible and most historians actually believe he was born in the spring.
- Hanukkah is not the Jewish Christmas. There is no significance to giving gifts during the holiday. But there is a tradition to give gelt (money) to give kids an incentive to learn the Torah.
- Though Santa Claus has worn blue and white and green in the past, his traditional red suit came from a 1930s ad by Coca Cola.
- Rudolph was actually conceived by a department store, Montgomery Ward, as a marketing gimmick to get kids to buy holiday coloring books. Rudolph almost didn't have a red nose either: At the time, a red nose was a sign of chronic alcoholism and Montgomery Ward thought he would look like a drunkard.
- Around 17.5 million oily doughnuts (sufganiyot) are eaten in Israel during Hanukkah, commemorating the miracle of oil.
- In Korea and some other Asian countries, when you are born, you are considered one year old and everyone's age increases one year on New Year's. So if you were born on December 31st, on New Year's day, you will be considered 2 years old.
- Some people wear adult diapers while celebrating New Years at Time Square due to the lack of toilets.



"WE CREATED THIS GENERATION. WE'VE BEEN GIVING THEM A TROPHY FOR LAST PLACE SINCE THEY WERE 6 YEARS OLD WHEN WE SHOULD HAVE SAID PICK ANOTHER SPORT." - GEORGE ARRANTS



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If multiple correct answers are received, one winner will be selected at random.



Last Quarter's Puzzle: Antique Toilet Paper Holder



Cast Iron Toilet Paper Holder made by Wright

WE HAD NO CORRECT ANSWERS THIS TIME

WHAT'S GOIN' ON?

Dec. 5-7	Construction Super Conference	Las Vegas, NV
Jan. 27-30	BOMA International	San Diego, CA
Jan. 28-Feb. 1	ASHRAE Conference & Expo	Las Vegas, NV
Mar. 5-9	MCAA Conference	San Diego, CA
June 4-7	NFPA Convention & Expo	Boston, MA

HAPPY NEW YEAR

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Please send your request to
MMI@mulvaneyinc.com



Mulvaney
MECHANICAL, INC.

MECHANICAL CONTRACTORS

4 Christopher Columbus Avenue
Danbury, Connecticut 06810
203-797-8005 845-278-8813
Fax: 203-794-1786
E-mail: mmi@mulvaneyinc.com