FitNetworks:
Digital viruses just as critical as coronavirus

When it comes to securing a company's IT infrastructure, **Brian Sullivan, CEO** of FitNetworks, believes the world has become a smaller place, and cybersecurity is more important than ever before. Along with the novel coronavirus, he encourages the industry not to forget the threat of digital viruses!

Revealing the cyber threats & vulnerabilities of remote work

When it comes to working and conducting business within this new virtual universe, FitNetworks was ahead of the curve. As a cybersecurity company that manages information technology (IT) infrastructure and end-user systems, we have been implementing security standards for a virtual workforce for years. Interaction with our employees, customers and business partners has always been heavily remote in nature.

FitNetworks' processes, procedures and guidelines for best practices put a great deal of emphasis on cybersecurity as it relates to remote access to corporate networks and resources. A high percentage of our customers were already set up for "working from home" with these same standards. However, as you can imagine, we were inundated with supporting many workers heading to home offices practically overnight. This has created an enormous paradigm shift that has to be addressed proactively by every company.

By working outside their offices, employees realized early on that efficiency and technology is very unsecure – especially with popular digital platforms like Zoom. At the outset of the pandemic, Zoom had serious security flaws, and millions started using that platform virtually overnight. While the platform is currently more secure, threats to digital platforms are constantly evolving. Those creating the threats are very smart, smarter than most workers.

In the past, most personnel were behind a firewall in the company – inside the castle, so to speak, in a controlled environment. Now, almost every employee is working remotely from an unsecure environment and must securely access the resources of the company, many of which are inside the castle. To do this and prevent intrusion and the loss of valuable assets, numerous security mechanisms need to be implemented, serviced and monitored regularly to ensure secure continuity of operations.

Staying ahead of the curve

With so many additional individuals connecting remotely to our clients' plant or facility networks, FitNetworks' cybersecurity efforts took on an increased focus. The secure architecture we work from allows us to remotely install, update and monitor all software services on clients' computers. When a new employee is hired by one of our customers, we can ship them a computer already set up, or remotely install the necessary software services and mechanisms on their machine, depending upon the company's policies.

Industrial DMZ a key component

Our clients are taking digital security much more seriously, not only in terms of securing access for the new remote workforce, but also in terms of rethinking how networks are designed, and access is granted to vendors and service providers. FitNetworks has long been a proponent of implementing the Industrial DMZ in chemical manufacturing as a means of accessing data from the Industrial Control System (ICS) in a secure fashion. The modern industrial DMZ acts as a zone and conduit system protecting physical processes and separating networks according to their different purposes, requirements and risks. This type of network design is long overdue for chemical manufacturers who are not already set up for it, especially those managing risks associated with producing or utilizing hazardous chemicals (e.g., DHS chemicals of interest).

Holistic perspective a challenge

The struggle we've long dealt with is that cybersecurity means something different to everyone and to each company. We had the excellent opportunity to talk to many companies at SOCMA Week in New Orleans last year. One of our main takeaways was the lack of a holistic perspective. To some, cybersecurity is the disaster recovery or backup solution in place to mitigate ransomware threats. To others, cybersecurity is handled by legal and insurance. FitNetworks' approach to cybersecurity is much more comprehensive and fully encompasses how to support the remote workforce along with protecting plant and business assets.

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Our Cybersecurity Risk Assessments are a holistic assessment of threats that face an organization, careful evaluation of vulnerabilities that currently exist in an operating environment, and an honest look at how risk is currently managed. FitNetworks creates cybersecurity practices and procedures using standards like DHS RPBS-8 Cyber, NIST Cybersecurity Framework, etc. And, we utilize secure virtual private networks (VPNs), collaboration tools and additional user cybersecurity training.

Utilizing tools and resources

FitNetworks will continue to use the plethora of tools we have grown accustomed to. As an organization, we have implemented many of the Microsoft 365 collaboration tools, including Teams, SharePoint, OneNote and Exchange Online. As previously mentioned, many of FitNetworks' clients are across the United States and Canada. These and other programs have made the world a little smaller recently, which has been eye-opening to all of us. But out of the box, nothing is secure.

We also believe in SOCMA as a platform for networking and education as it relates to cybersecurity. The roundtables, forums, webinars and articles all offer valuable, tailored insight and intelligence that businesses across the specialty chemical industry need to aptly conduct business. Additionally, FitNetworks provides a complementary high-level cybersecurity assessment to all fellow SOCMA members as well as access to our cybersecurity solutions white papers.

Greater emphasis needed on cyber

Chemical manufacturers will always have a reliance on an essential onsite workforce. That need may evolve as the landscape evolves and stabilizes, but our Quality, Production, EHS and Maintenance departments will return onsite. However, support personnel may have less of a presence at physical locations. Greater emphasis on cybersecurity is required as more outside connections to a company's network

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increases vulnerabilities. As more employees require outside connections to a company's network, those increasing security vulnerabilities will place even greater emphasis on cybersecurity.

Top 5 safeguards and safety processes companies should have in place

1. **Perform a Cybersecurity Risk Assessment** and contract with a **Managed Security Service Provider** to help implement and manage your cybersecurity plan.
2. Industrial DMZ – proper network design to accommodate the virtual workforce as well as vendors and service providers.
3. **SIEM/SOC-System Information Event Management and Security Operations Center** – Real-time evaluation of security alerts generated by your network equipment, applications, servers, antivirus software, as well as the workforce to monitor and respond to anomalous events.
4. **Multifactor Authentication especially for all VPN connections** – Under no circumstances should a remote user have access to a corporate or ICS network without utilizing a second factor (something you have or something you can get).
5. **Next Generation Firewalls** – Traditional layer 3 firewalls are no longer adequate for securing your networks. Application layer firewalls with advanced security protection are a must.

Most common vulnerability issues:

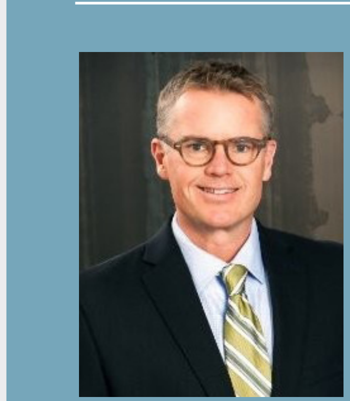
- People are the weakest link
- Poor username and password
- Lack of holistic cybersecurity program
- Lack of training and knowledge

Reducing cyber incidents

Continuity of operations and emphasis on security will be greatly impacted and potentially improved. Specifically, as our clients increase their knowledge on how to support plant operations most effectively and efficiently in a remote setting, consequences from onsite or cyber-related incidents can be reduced. It is imperative that everyone understands this paradigm shift of people no longer working inside the firewall. They are outside the firewall, which is where the cybersecurity criminals are. These criminals are always looking for a way to get inside the firewall. It is critical that companies truly understand the actions that must be taken to not allow cybersecurity criminals to manipulate the fact that businesses are working in remote environments.

SOCMA recently launched a cyber security insurance program. For more on this new offering contact Paul Hirsh at phirsh@socma.org, or (571) 348-5102.

Short supply chains win



Business, growth potential accelerates for online B2B marketplace

When **CEO Tyler Ellison** launched **ChemDirect** as an online marketplace in 2019, under the umbrella of Nova Molecular Technologies, he knew there was an opportunity for success. His mission was simple – to connect the chemical world in real-time and create a seamless digital experience for manufacturers and customers seeking on-demand chemical supplies that can be shipped directly to them.

Now a stand-alone entity, Ellison says the events of 2020 have reaffirmed and accelerated the fundamental beliefs of why he started ChemDirect. While the specialty chemical industry typically sources raw materials through their own procurement teams, ChemDirect offers an additional and advantageous resource for acquiring supply:

- Using customer data to predict shortages,
- Transforming business-to-business (B2B) to business-to-consumer relationships (B2C), and
- Shortening the supply chain and solving the final-mile challenge.

"Manufacturers deserve the efficiency of understanding what the demand signals are for their materials. Going through traditional channels they don't get it," Ellison said.

What sets them apart?

Ellison and his team felt confident about the new company's growth potential from the start, but unprecedented events in 2020, such as COVID-19, have accelerated that timeline. "Historically, anytime there's been a disruption, the ability to aggregate and order digitally is a significant advantage," Ellison said.

One of the greatest benefits of his business model is keeping his customer base apprised of product demand. "In March, we watched all the incredible spike in alcohol demand and price," Ellison said. "With that insight, our manufacturers altered their operations to supply more alcohol before the market knew what was hitting it, so we were the rare source with an online inventory for those critical ingredients and disinfectants," he said. "That experience validated a lot of our baseline assumptions about the industrial B2B marketplace."

What does that mean? Manufacturers were able to understand the demand much more rapidly than normal, giving them time to respond, and customers were able to tailor their needs because ChemDirect was the only company with inventory at that time, Ellison said.

"What we didn't expect is our value proposition would resonate so largely with big industrial buyers," he said. "We have found that ALL buyers value short supply chains and the ability to minimize order size and related storage issues. The ability to shop, point and buy on demand is only going to grow, as digital adoption grows."

Having a trusted source for crucial intelligence about purchasing patterns is also revealing and helpful to customers. "We can tell manufacturers that buyers are looking for X, Y, and Z – create that," Ellison said. We can also tell them the exact time of day and best day of the week that people are searching for their products," he said – all information that helps companies make key business decisions.

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ChemDirect has not lost sight of the value in trending digital connections they are witnessing through its platform. Every morning, Ellison examines site data and sees people from across the world shopping. "This is not just a U.S. phenomenon but a global one," he said, noting the growing amount of international business relationships being made through their site.

As a longtime professional in the chemical supply chain, Ellison views ChemDirect as a valuable supplement to existing channels. "We are linking companies directly to a marketplace they wouldn't connect to independently, where they will benefit from product availability, lower prices, and gain critical insights by utilizing this channel."

Serving the customer base

The core of ChemDirect's customer base is universities, biopharma and analytical testing labs. As of mid-June, the company had about 200,000 SKUs with expectations of reaching as high as a million by the end of August.

Due to the surmounting, differing needs in 2020, ChemDirect expanded its marketplace beyond chemicals. The platform now includes a range of products to help fight COVID-19, such as PPE, disinfectants and sanitation supplies. "I think the pandemic expedited that growth, but it was bound to happen based on our value proposition we provide to both the customer and supplier," said Olivia Simon, Director of Operations at ChemDirect.

ChemDirect is also working with unexpected customers like NFL teams, large universities and many smaller buyers, to assist them with acquiring PPE and other pandemic supplies they can't find elsewhere. "We're able to respond with nimbleness and flexibility they wouldn't normally get through typical channels," Simon said.

The most rewarding aspect, according to Ellison, is helping people fight the pandemic and getting much needed supplies from vetted suppliers to the people who need them most.

Looking ahead

Ellison believes that, even with science and vaccines, the psychological impact of 2020 will be long-lasting. "Generations of people are going to have permanent shifts in their business mindset," he said.

With this ever-changing landscape, Ellison is skeptical of making a five-year business plan. "Listening and responding to the market is what drives our strategy," he said. "It is a pull strategy versus a push. We will be able to pivot and respond quickly and effectively, no matter the circumstances."