President’s Message

“Thanks again for the opportunity to serve as your President” – That was my lead statement in my first article to you four years ago and I meant it. I appreciate the time I have spent in this position since 2014 and I am amazed and saddened at all that has occurred during that time. As with the industry and our families, there have been changes. Two amazing leaders and mentors have left us with big shoes to fill in the past 4 years. Every meeting we have brings back memories of the amazing work that others have brought to the table before us. As we have moved from blue prints to BIM and oil filled u -tubes to electronic meters, our industry has progressed. Today, the rules that govern our industry addresses new guidelines of standards (www.ansi.org) to changes in local (www.energy.ca.gov/title24) building codes and national regulations (see NFPA and OSHA) which lead us on new paths every day. I have memories of my father performing TAB using a slide rule, regular pencil and true blue prints while wearing a tie. Our next generation text faster than I can type, perform TAB wireless and Google the answer or watch the “How To” on YouTube.

“Change is the only constant in life” – Heraclitus

Yet, we all try and control it. When we all started in our work, we read the “rules” and said that was it. But then the rules were refined and changed like pitot traverse rules. What is true today may not be true tomorrow. Are you ready for tomorrow and who will be there to lead? Are you the next to lead?

Our industry has changed in more directions than can be discussed in this article. Each and everyone one of us should be participating somewhere in it. We are “Certified” and “Professionals”.

“Certified” (Webster Dictionary) – “Genuine, authentic”

“Professional” (Webster Dictionary) – “Engaged in one of the learned professions” …. “Characterized by or conforming to the technical or ethical standards of a profession”
Thinking back to Bill Jeffrey, Vic Congi, Marty Cirillo and Ron Smith..... These were Certified Professionals that were engaged and ethical. They carved paths before us and left big shoes to fill by you and me. They took additional training, volunteered, taught, wrote books/articles, developed new ideas and rules, etc. We prefer our industry be led by professionals versus people seeking personal gain.

Our industry and those firms who provide a service in that industry, must address these changes. We must constantly work with, not against those changes as we move forward. We need to always look for that next professional who can lead us to the next level. Sometimes we can fight the change, we can direct the change or somewhat control the change but the change will happen. Be a part of this movement or get out of the way as it is here.

As I step down this year as your local chapter president, I look forward to that next generation to lead. I encourage all of you to participate somewhere in our industry. Thank you again for letting me serve you and our Chapter over the last 12 years.

*Steven G Smith
NorCal Hawaii NEBB Chapter President.*

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**Dan Int-Hout Does a Great Job as our Chapter Annual Meeting Speaker!**

For those of you who missed our speaker, Dan Int-Hout with Krueger, or want to receive the information that he referenced throughout the day, you can access his presentations on-line on our Chapter website at nocalhawaiinebb.org.

Dan’s articles, charts, white papers, etc. are being uploaded to our Chapter Drop Box. If you would like to receive access to this information, please contact the Chapter at nocalhawaiiinebb.org. We will be glad to share the Drop Box link with you.

Dan Int-Hout can be reached at 214/557-7482 or dint-hout@krueger-hvac.com.

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CryptoLocker – Its back and better or, should I say, worse than ever!

Over the past couple of weeks, we have seen an increase in the number of network attacks from the ransomware commonly referred to as CryptoLocker. CryptoLocker is undeniably the planet’s worst ransomware trojan to date. CryptoLocker is a ransomware trojan that targets computers running Microsoft Windows. CryptoLocker propagates via infected email attachments, and via an existing botnet; when activated, the malware encrypts certain types of files stored on local and mounted network drives using RSA public-key cryptography, with the private key stored only on the malware's control servers. The malware then displays a message which offers to decrypt the data if a payment (through either bitcoin or a pre-paid cash voucher) is made by a stated deadline, and it will threaten to delete the private key if the deadline passes. If the deadline is not met, the malware offered to decrypt data via an online service provided by the malware's operators, for a significantly higher price in bitcoin.

**How does one get the Cryptolocker ransomware?**

Email is the primary entry point for the Cryptolocker Trojan into networks and computers. Cryptolocker typically is propagated as an attachment to a seemingly innocuous e-mail message, which appears to have been sent by a legitimate company. These emails may contain company logos and representations that they are legitimate.

The emails tend to offer legitimate services or ask a reasonable request as simple as a payment receipt or deliver document. Once the attachment is clicked, the ransomware is deployed in your systems and then encrypts files across local hard drives and mapped network drives with the public key, and logs each file encrypted to a registry key. The process will encrypt Microsoft Office files and AutoCAD files to name a few. Beware that these are only a couple of examples of the types of files that are encrypted. I recently received a FedEx tracking email with an attachment that I was supposed to click on the view my tracking information. I however, had not ordered anything and was not expecting anything from FedEx. So I knew that this was not a legitimate email. With today’s tendency to shop online and receive those types of emails, it is easy to mistake one of those as a legitimate email.

Most recently, we have seen the Cryptolocker ransomware exploit Remote Desktop Protocol (RDP) connections. The botnet will target an RDP port and begin what is commonly referred to as brute force attacking the port with randomly generated passwords until it discovers the correct password. Once it has discovered the correct password, the bot logs onto the network computer and the ransomware is deployed in your systems and then encrypts files across local hard drives and mapped network drives with the public key, and logs each file encrypted to a registry key.

Once the execution file for the ransomware is completed, the damage is done. The malware invades ALL mapped drives of the network, so ANY connected backup or external drives can be infected, as well other machines on the network can also catch the virus. For those of you that use Dropbox, guess what, all files in your drop box would be encrypted which would then propagate to other users of those files and encrypting those files as well.

Once the files are encrypted, we have found that the only logical course of action is to format and reload
the system or restore images from backup images. So any data changed, modified or created between the
time of your last backup and the time of the encryption, will be lost. It is possible, as stated previously, to
pay a ransom and get the decryption code and utilize that code to decrypt the files. However, this typically
requires ones knowledge of how to and where to obtain bitcoins and then the decrypt code does not
always work and in some cases is no longer available.

**How do I protect myself from CryptoLocker?**

Backups, Backups and more Backups. Or in other words Images, Images and more Images. Starting to see
my point here? If you do not have adequate backup images that are stored off the network, you are not
safe.

Training on email policies and procedures. Teach people how to handle emails and email attachments. If,
by chance, someone gets an email from what appears to be a legitimate source and there is an attach-
ment, which appears to be what you would expect, and you click on it and then something unexpected
happens, shut down your computer right away, contact your IT support person and inform them of
what has just happened. Not doing so could be the beginning of a really bad day. In addition, NEVER
click on links in emails. I do not care who they come from. If you get an email from your best friend
saying click on this link to see the latest interview of your favorite sports team, stop, do not click. Con-
tact your friend and say, did you just send me a link? If they say yes, then you might choose to click on
it. If they say no, then delete the email right away. If you get an email from the bank saying click on the
link below to view your online bank statement and you get this same email every month with the same
message, do NOT click on the link. Go to your bank’s website and log into your account and view your
statement from there. Scammers often duplicate common emails and email formats trying to trick you
into clicking on them. I repeat, you should never click on a link in an email unless you are 100% sure it
was sent for the intended purpose.

Auto Sync Users i.e. DropBox, Box, Sync users. I know it is super convenient to have your files to automati-
cally upload and propagate but understand, anything that happens to the files gets propagated across
every person that has access to that folder. For those of you that are super users, do not abuse me to
bad, as I am aware of the version control that comes with these programs but the hassle is still present
of destroying the encrypted document and restoring the clean one. I would recommend performing the
synchronization manually, where possible.

Remote Desktop Protocol (RDP) users, first and foremost increase your password complexity. Subsequent-
ly, to maximize your protection, use a Two-factor authentication (2FA) standard for accessing your re-
mote desktops.

**Guidelines for strong passwords adapted from Wikipedia**

**Common guidelines:**

Guidelines for choosing good passwords are typically designed to make passwords less easily discov-
ered by intelligent guessing. Common guidelines advocated by proponents of software system
security include:
Use a minimum password length of 12 to 14 characters if permitted.
Include lowercase and uppercase alphabetic characters, numbers and symbols if permitted.
Generate passwords randomly where feasible.
Avoid using the same password twice (e.g., across multiple user accounts and/or software systems).
Avoid character repetition, keyboard patterns, dictionary words, letter or number sequences, usernames, relative or pet names, romantic links (current or past) and biographical information (e.g., ID numbers, ancestors' names or dates).
Avoid using information that is or might become publicly associated with the user or the account.
Avoid using information that the user's colleagues and/or acquaintances might know to be associated with the user.
Do not use passwords which consist wholly of any simple combination of the aforementioned weak components.
Lastly, begin to take steps to protect yourself from this malware or if you believe you are “all set” then verify that you are truly protected.

Thank you and happy and SAFE surfing.

Written by
Derek Hedrick, Ameritech Data Solutions

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2018 Annual Convention Registration opens October 2, 2017.

Check www.nebb.org for updates!
The Northern California/Hawaii NEBB Chapter’s Annual Recertification Meeting held in Napa this last September, was a day filled fun and lots of good information. Our current Chapter President, Steve Smith was presented with a Certificate of Appreciation for the 4 years he volunteered as Chapter President. Thank you Steve for all you have done for this Chapter. Enjoy the pictures!
Upcoming Events

**BSC ADVANCED CERTIFICATE COURSE**

March 12-16, 2018, Monday – Friday  
All Day Event  
NEBB TEC  
Gaithersburg, Maryland  
For Registration contact nebb.org

**SOUND AND VIBRATION SEMINAR**

April 2-6, 2018, Monday - Friday  
All Day Event  
NEBB TEC  
Gaithersburg, Maryland  
Contact the NEBB Office to sign up or to receive more information at www.nocalhawaiinebb.org

**NEBB 2018 ANNUAL CONFERENCE**

April 26-28, 2018  
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San Diego, CA  
Contact the NEBB Office to sign up or to receive more information at www.nebb.org

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