North Texas PC News

Internet of Things Poses Opportunities for Cyber Crime

By Doug Gorrie

I recently received a Public Service Announcement (PSA) from the FBI in connection with my membership in the North Texas Chapter of InfraGard, a collaboration between the FBI and private sector partners that manage the critical infrastructure of the United States. Protecting against terrorism and cybersecurity threats is a major part of that partnership.

This PSA describes the Internet of Things (IoT), which is fast becoming a bandwagon that industry and the public want to jump on. The IoT refers to any object or device which connects to the Internet to automatically send and/or receive data. Yet with all this great connectivity and excitement comes a number of potential risks, and the FBI and others want to make the public aware of the risks so they can be better avoided.

The following content comes directly from their PSA, and is also published on the website of the Internet Crime Complaint Center (IC3), a partnership between the FBI and the National White Collar Crime Center (NW3C). If you want some interesting reading about Internet scams, visit IC3's Press Room.

As more businesses and home-owners use web-connected devices to enhance company efficiency or lifestyle conveniences, their connection to the Internet also increases the target space for malicious cyber actors. Similar to other computing devices, like computers or Smartphones, IoT devices also pose security risks to consumers. The FBI is warning companies and the general public to be aware of IoT vulnerabilities cybercriminals could exploit, and offers some tips on mitigating those cyber threats.

What are some IoT devices?

- Automated devices which remotely or automatically adjust lighting or HVAC
- Security systems, such as security alarms or Wi-Fi cameras, including video monitors used in nursery and daycare settings
- Medical devices, such as wireless heart monitors or insulin dispensers
- Thermostats
- Wearables, such as fitness devices
- Lighting modules which activate or deactivate lights
- Smart appliances, such as smart refrigerators and TVs

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Special Interest Groups (SIGs) ...

Sessions with presentations, discussion, and exchanges of information

All SIG meetings at King of Glory Lutheran Church, 6411 LBJ Fwy in Dallas (between Preston & Hillcrest, north side of LBJ), *normally* the third Saturday of each month.

HTPC/Home Automation – 8:00 am

Bill Parker
Bill.Parker at ntpcug.org

Sorry—we won't be meeting in September, but join us in October.

Home Theater (or Media) PCs and Home Automation come in an endless range of capability, complexity and price. It may just be setting the home thermostat remotely, routing audio and/or video to different rooms, or performing other, similar tasks. We are not meeting this month.

Powershell – 8:00 am - 10:00 am

Larry Weiss   **Josh Miller**
LFW at airmail.net   jmiller76 AT gmail.com

From 8 to 9 am, we will have an informal hour covering topics and demonstrations that come up in discussion.   The second hour starting at 9 am will begin with a presentation on the introduction of "Visual Studio Code" aka "VSCode", a new standalone program source editor and project management tool provided free of charge by Microsoft.

A preview of the notes for the presentation is available at this URL .

If anyone has a script that they would like to share please bring it to the meeting. Discussion about scripts and "what I did" situations are a driving force of the PowerShell community.

Microsoft Excel – 8:00 am

Frank Tubbs, SIG leader
Ftubbs at sbcglobal.net

More about Excel macros. Last month we created an example live during the session. The only problem is the code was an infinite loop.

So, now we need to fix the problem. How do you troubleshoot code that does not end? Let's take a look and learn about tools and techniques used to troubleshoot your problems away.

If you have a problem that you need us to resolve, just bring it to us and we can substitute your issue for mine. If nothing comes up our example will be the topic of discussion.

Windows Tips & Tricks — 9:00 - Noon

Chuck Stark
chuck.stark at ntpcug.org

Gil Brand
GB9130 at Gmail.com

Windows 10 - What We Know, and What You Should Do, *Plus the usual Open Q&A*

If you have a 'troubled' system, contact Chuck or Gil for a possible 'live, no net' troubleshooting session.

Making Money on the Internet — 9:00 am

Alan Lummus
Alan at bkmts.com

To build your profitable website today, you have a lot of choices. Perhaps so many it's hard to winnow them down to the best ones for your application.

At this month's SIG, we'll review a number of available options and develop guidelines that can help you with your decisions. We'll also plan an all-day workshop to help you get your site up and making you money quickly, or growing to make you even more. Bring your experience to share and your questions to help us focus.

Microsoft Application Development Study Group SIG - 10 am to Noon

Tom Perkins
TomPerki *at* Gmail.com

Chris Morgan
Chris.Morgan *at* ntpcug.org

This month, the AppDev SIG will begin a series of sessions regarding Web Development Front-End environments.

For our September "3rd Saturday" session, we'll have two presentations. **Larry Weiss** will present information about **VSCode**, a new cross platform code editor for developing modern web and cloud applications. For a preview of Larry's presentation, please visit the following URLs:

- http://sp.ntpcug.org/PowerShell/Shared%20Documents/Larry_Weiss_VisualStudioCode.demo.txt
- http://www.dotnetrocks.com/default.aspx?ShowNum=1186 # at 33 minute mark
- https://channel9.msdn.com/Events/Build/2015/3-680

In our second session, **Tom Perkins** will present a hands-on introduction to **Node.js**, a super-fast, cross-platform JavaScript interpreter that can be used to develop server-side web applications. Since learning a new programming tool can really only be done experientially, we'll take it "one step at a time".

In future months, we'll look at more web development tools, including **Gulp**, **Bower**, **Yeoman**, and many others.

Questions or comments? Contact Tom Perkins (tomperki@gmail.com) or Chris Morgan chris.morgan@ntpcug.org)

Digital Photo Editing Software — 10:00 am

Spike Smith, NCE
Spike *at* spike-info.com

We will discuss what many users are presently purchasing. These users may have been curious of certain new features

and specialty cameras. You too may have considered but would like to know how to effectively use them.

Two months ago, we displayed and discussed a super unbreakable camera. Maybe it will reappear from the Kreshtool bag this Saturday. Possibly one feature of this small but rugged fine picture taker can be as a defensive weapon fending off hoodlums as you pick up resources from an ATM.

If you have picked up a camera loaded with a fine feature or two, bring it with you for show and tell. If it is an older camera, bring it along too.

I have several gadgets and not all work as advertised. We will observe a few of these common gadgets and tools while observing what is salvageable.

Internet — 11:00 am

Glynn Brooks
Glynn.Brooks *at* ntpcug.org

Complementary Microsoft Technologies

Microsoft has knit together complementary technologies that create something bigger than the sum of the parts.

OneDrive provides file synchronization and storage that let Office 365 and Windows 10 interoperate in a seamless manner while enabling file sharing and group collaboration.

Outlook is a powerful stand-alone product, but it is even more useful with OneDrive running on multiple platforms and enabling PC, tablet, and phone synchronization. People log in to their computers using their Microsoft accounts, backup their files to the cloud, shop for apps, music, and video in the Windows Store, and use Universal Apps that can be run on any device.
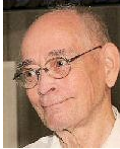
Word — 10:00 am

Sharon Dorsey
Sharon.Dorsey *at* ntpcug.org

In September, we will have an open discussion, based on your questions & suggestions.

Digital Photography Digital Photo Editing Software — 10:00 am

Spike Smith, NCE
Harold.Smith *at* ntpcug.org

Are your photos and special images mundane? Take a cursory look at some dozens of imaginative ideas from a new world of magazines.

When fine old-timer magazines bite the dust it is usually due to marketing and sales have an idea that old is bad and new must absolutely be placed on the agenda. We, the reader, may not go along with this philosophy but you must realize that consultants are hired to *make changes* to get paid. Think about those super sketches and paintings by the great social artist Norman Rockwell. (If Mr. Rockwell were still alive today, his works would still command a steady place in our society. His works of old still command attention.)

To open one's eyes to abnormality as serving *different* viewpoints to stretch and build ideas to be new and perhaps salable I will show magazines on trial. Having fewer proven magazines hasn't destroyed the market for artists because there are hundreds of trials available each year.

As you thumb thru these new ideas and perhaps find little to admire; spend some time with visualizing techniques. This may inspire you to create your objects for recognition.

Wireless Communications — 12:30 pm

Birl Smith
birl.smith *at* ntpcug.org

In September, we will be talking about Best Practice for your Network. There are constant changes in operating systems, browsers, security suites and network hardware. You need to know your hardware to make the best choice/adjustment for your network.

Salesforce.com – 11:00 am; 12:30 pm

Salesforce.com offers two major certifications for Force.com Developers: The Developer Certification (DEV401) and the Advanced Developer Certification, (DEV501).

Dallas Salesforce Developers Group is pleased to offer FREE classes each year to candidates.

All, remember, this is the study group for 401 and 501 (aka the study group). Not to be confused with our 4th Wednesday meeting held at the Improving Enterprise (which is more mischief, no studying). The objective is for each of us to take the respective exams at the end of the sessions, so we will keep up the pace. Ask questions. These are not easy exams, but I am convinced that we can get everyone past the finish line.

Windows Inside Out — 12:30 pm

Glynn Brooks
glynn.brooks *at* ntpcug.org

Windows 10 Storage Pools and Storage Spaces

Although Windows 10 is primarily focused on applications, it also introduces several new ways to manage disk storage. A Storage Pool is a big blob of storage space made up from multiple internal or externally attached drives of any capacity or type. Storage Spaces let you carve up a Storage Pool into one or more drive letters with several levels of protection.

In September, I'll demonstrate both, and discuss the pros and cons of the protection levels.

Investors - 1:30 pm

Gil Brand
GB9130 *at* Gmail.com

We will have our usual Q&A session. Bring your questions and experiences in investing and share with the group.

NTPCUG Member Websites

Are you an NTPCUG member? Do you have a website that you would like to share with other members? Here is your opportunity to publicize your hobby, personal interests or a business.

NTPCUG now permits each member to post their name along with <u>one</u> website at www.NTPCUG.org and in our newsletter. Member links to be posted are subject to Board approval, and cannot contain inappropriate content or promote illegal activities – all the usual conditions that responsible persons expect. Send us your links now!

If you wish to post as shown above, just e-mail webmaster@ntpcug.org with your name, member number and the URL of your desired website. We'll post your name and URL on our website and in the newsletter for as long as your membership remains current.

Here are our current member sites:

Member & Website	*Member & Website*
Howard Lee Harkness	**Bob Hawkins**
http://amazopia.com	www.fairviewmicrowave.com
Bill Parker	**Doug Gorrie**
www.Partec.net	www.JanetGorrieInteriors.com
Larry Weiss	**Fred Williams**
https://sites.google.com/site/powershellsig	www.JFHequipment.com
Peter Bendel	**Sharon Dorsey**
www.codekitchen.com.au	www.organizingelements.com

Access News from the Northwest

by Teresa Hennig

Here are some useful resources for Access users:

Access Support Team Blog
The Microsoft Access Support Team has a blog to share frequent topics and issues that they have encountered. Please visit their blog and share with others … http://blogs.technet.com/b/ the_microsoft_access_support_team_blog/

Access Web and Desktop Advice   at vb123.com by Garry Robinson http://www.vb123.com
Garry hosts one of the best and biggest collections of articles, tips and demonstrations for Microsoft Access. Garry has provided a wealth of information and resources … over 600 pages, 150 pdf and 1000's of pictures. So delve in and check back often! In addition to his collection, Garry has the EXCLUSIVE rights to distribute the content from Smart Access -- "THE" Access magazine from 1996 - 2006.

Access MVPs – Sharing code and resources
Several Access MVP are sharing resources and links through the website hosted by Arvin Meyer.
http://AccessMVP.com

Sites to search for information and programming assistance
www.mvps.org and Access Developer Portal MSDN (http://msdn2.microsoft.com/en-us/office/aa905400.aspx) -- these provide database samples and tutorials provided by Access MVP and other experts.
Office Developer Center on MSDN --aka: Office Developer Documentation. And, we've been mentioning the newsgroups. You can search and drill through thousands of threads.

Utter Access Discussion Forum
Touted as the number one Access community forum! This may be a great place to get answers to your questions. And, you'll see several familiar names as some of our members are prolific posters.
www.utteraccess.com.

(IoT—cont'd from Page 1)

- Office equipment, such as printers
- Entertainment devices to control music or television from a mobile device
- Fuel monitoring system

How do IoT devices connect?

 IoT devices connect through computer networks to exchange data with the operator, businesses, manufacturers, and other connected devices, mainly without requiring human interaction.

What are the IoT Risks?

 Deficient security capabilities and difficulties for patching vulnerabilities in these devices, as well as a lack of consumer security awareness, provide cyber actors with opportunities to exploit these devices. Criminals can use these opportunities to remotely facilitate attacks on other systems, send malicious and spam e-mails, steal personal information, or interfere with physical safety. The main IoT risks include:

- An exploitation of the Universal Plug and Play protocol (UPnP) to gain access to many IoT devices. The UPnP describes the process when a device remotely connects and communicates on a network automatically without authenti-

cation. UPnP is designed to self-configure when attached to an IP address, making it vulnerable to exploitation. Cyber actors can change the configuration, and run commands on the devices, potentially enabling the devices to harvest sensitive information or conduct attacks against homes and businesses, or engage in digital eavesdropping;

- An exploitation of default passwords to send malicious and spam e-mails, or steal personally identifiable or credit card information;

- Compromising the IoT device to cause physical harm;

- Overloading the devices to render the device inoperable;

- Interfering with business transactions.

What an IoT Risk Might Look Like to You?

Unsecured or weakly secured devices provide opportunities for cyber criminals to intrude upon private networks and gain access to other devices and information attached to these networks. Devices with default passwords or open Wi-Fi connections are an easy target for cyber actors to exploit.

Examples of such incidents:

- Cyber criminals can take advantage of security oversights or gaps in the configuration of closed circuit television, such as security cameras used by private businesses or built-in cameras on baby monitors used in homes and day care centers. Many devices have default passwords cyber actors are aware of and others broadcast their location to the Internet. Systems not properly secured can be located and breached by actors who wish to stream live feed on the Internet for anyone to see. Any default passwords should be changed as soon as possible, and the wireless network should have a strong password and firewall.

- Criminals can exploit unsecured wireless connections for automated devices, such as security systems, garage doors, thermostats, and lighting. The exploits allow criminals to obtain administrative privileges on the automated device. Once the criminals have obtained the owner's privileges, the

criminal can access the home or business network and collect personal information or remotely monitor the owner's habits and network traffic. If the owner did not change the default password or create a strong password, a cyber-criminal could easily exploit these devices to open doors, turn off security systems, record audio and video, and gain access to sensitive data.

- E-mail spam attacks are not only sent from laptops, desktop computers, or mobile devices. Criminals are also using home-networking routers, connected multi-media centers, televisions, and appliances with wireless network connections as vectors for malicious e-mail. Devices affected are usually vulnerable because the factory default password is still in use or the wireless network is not secured.

- Criminals can also gain access to unprotected devices used in home health care, such as those used to collect and transmit personal monitoring data or time-dispense medicines. Once criminals have breached such devices, they have access to any personal or medical information stored on the devices and can possibly change the coding controlling the dispensing of medicines or health data collection. These devices may be at risk if they are capable of long-range connectivity.

- Criminals can also attack business-critical devices connected to the Internet such as the monitoring systems on gas pumps. Using this connection, the criminals could cause the pump to register incorrect levels, creating either a false gas shortage or allowing a refueling vehicle to dangerously overfill the tanks, creating a fire hazard, or interrupt the connection to the point of sale system allowing fuel to be dispensed without registering a monetary transaction.

Consumer Protection and Defense Recommendations

- Isolate IoT devices on their own protected

networks;

- Disable UPnP on routers;

- Consider whether IoT devices are ideal for their intended purpose;

- Purchase IoT devices from manufacturers with a track record of providing secure devices;

- When available, update IoT devices with security patches;

- Consumers should be aware of the capabilities of the devices and appliances installed in their homes and businesses. If a device comes with a default password or an open Wi-Fi connection, consumers should change the password and only allow it operate on a home network with a secured Wi-Fi router;

- Use current best practices when connecting IoT devices to wireless networks, and when connecting remotely to an IoT device;

- Patients should be informed about the capabilities of any medical devices prescribed for at-home use. If the device is capable of remote operation or transmission of data, it could be a target for a malicious actor;

- Ensure all default passwords are changed to strong passwords. Do not use the default password determined by the device manufacturer. Many default passwords can be easily located on the Internet. Do not use common words and simple phrases or passwords containing

easily obtainable personal information, such as important dates or names of children or pets. If the device does not allow the capability to change the access password, ensure the device providing wireless Internet service has a strong password and uses strong encryption.

-- END of PSA —

So, what does all this mean to you?   As we have already seen many times over, true security against hackers is impossible to achieve. Those that are intimately familiar with the structure and protocols of the Internet and its associated devices can get in, either easily, or with a minimal degree of difficulty. Our security is therefore contingent on us making it hard, not easy, for them to get in.

Just as two padlocks on the door are better than one, we all must strive to put roadblocks in the way of these scammers as much as is reasonable. You may not be able to prevent all intrusions, but layers of security can go along way in keeping out the amateurs and script-kiddies that are poking around.

Awareness of what is going on around you these days, and of the risks inherent in new technologies such as those in the IoT, will help you plan ahead for ways to make inappropriate access more difficult to achieve.

A Bit of Levity

Just to fill out the page, here are a few billboard's photographed by a friend while passing some bars in Scotland *(Ed: apologies—I ran out of intelligent stuff to say — no offense intended)*

Unattended Children Will Be Give an Espresso and a Free Kitten

Today's Special

Buy One Beer for the Price of Two and Receive a 2nd Beer *Absolutely Free*!!

Jokes About German Sausage Are The Wurst

- **Drink Triple**
- **See Double**
- **Act Single**

Alcohol and Calculus Don't Mix, So Don't Drink and Derive

**ALCOHOL:
.. Because No Great Story Started with Someone Eating A Salad ...**

Monthly NTPCUG Meeting Flyer – Can You Help Distribute?

Each month, we send members a flyer listing the upcoming second and third Saturday SIG meeting information. We work to fit it all on one page so it can be easily printed and posted in offices and public areas. It can also be sent by email to family members, friends, colleagues, etc.

With your help we hope to generate increased interest in User Group activities, thereby helping us grow. We rely on members, SIG leaders, Board members and volunteers to share this information with others. We also need you to consider new - options beyond the obvious – bulletin boards, etc.

We ask you, our members, to think of places where you can post the monthly flyer and to e-mail it to anyone you know who may be interested.

We try mightily to get this out before the weekend preceding the second Saturday of each month so you have time to "do your thing".

With your help we can grow our Group and reach others who can "*Share what you know, learn what you don't.*"

Where have you sent the September flyer?

Volunteering

Every board member, officer, chairman, and SIG leader is a volunteer. No one in this organization receives any payment for their work. Without our volunteers, NTPCUG would not exist.

Please consider volunteering for one of these important jobs:

Information Desk — Charles Rem
crem@ntpcug.org

Assist with check-in process at 3rd Saturday. One or more hours, even periodically, will make a difference.

This is an ongoing need. YOU can help, and it's not difficult. Training provided, so you really have no excuse not to assist - right?

Mentoring — Tom Sweet
tom.sweet@ntpcug.org

Communicate with new members to ensure they are aware of the benefits, SIG opportunities and help them in numerous ways to feel welcome and to know that we care about them.

Newsletter — Doug Gorrie, David Franke
doug.gorrie@ntpcug.org
davef81@gmail.com

We need someone to step forward to help request and collect articles from SIG Leaders for the monthly flyer and the newsletter. No experience required -- training provided.

NTPCUG has a Facebook and Twitter account.

Join us!

Renew Your NTPCUG Membership For "FREE"?

The Board has established a new NTPCUG benefit that permits renewing of memberships without the usual membership fee.

Simply put, any member that writes three articles for our newsletter, subject to the following criteria, can renew without cost. In this manner, we are encouraging our membership to share their expertise with other members, as well as providing an opportunity for members to research issues and share the results with others.

The current requirements for the program are as follows:

1. You must be a current member.

2. Requires at least three articles/year, submitted during the member's current membership year.

3. Articles must be at least a couple pages long in the newsletter, excluding any pictures, diagrams, etc. NOTE that the length is determined after editing, if needed.

4. Longer articles may be broken up across two months, and consideration will be given to counting it as TWO articles. However, length by itself may not count as more than one – it's meaningful content we're after.

5. Articles must be submitted at least two weeks prior to publication to allow time to review/edit. However, if the content is clean and readily understood, and requires only minimal review, and we have time to go over it, we might take it with less notice.

6. No plagiarizing, except for "small" amounts where credit is given to the actual author or source.

7. Articles must be relative to the goals and topics of our User Group. If in doubt, check with the Editor before writing it up.

8. At time of membership expiration, it is the member's responsibility to contact the Editor to request that their membership be extended, and list the months in which their articles appeared. We will confirm the details and have the Membership chairman extend you another year.

Please give this new program some thought, and come up with some good material we can use. Share your knowledge, in line with our motto –

"Share what you know, learn what you don't."

NTPCUG NEWSLETTER AD RATES AND DESCRIPTION

Paid advertising is available within the North Texas PC News at reasonable rates. The online Newsletter is published monthly and is distributed in PDF format to approximately 200 registered members.

SIZE	Price / One Issue	Price Each - Six Issues
Full Page	$120	$ 85
Half Page (vertical)	$ 75	$ 65
Half Page (horizontal)	$ 75	$ 65
Quarter Page	$ 50	$ 40
Business Card	$ 35	$ 25
NTPCUG Members	Half Price	

Policies & Mechanicals

- Commercial ads –
    - o   repro form, final size, ready for printing
    - o   JPEG or approved format
    - o   300 DPI minimum
- Text ads should follow most commonly used font styles
- No ads on front page
- Related only; suitable at discretion of NTPCUG
- Payment in advance
- Send requests for information, contacts, or orders to: **Advertising@ntpcug.org**

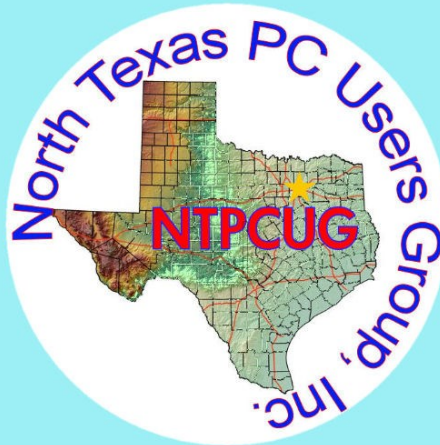# NTPCUG 2015 Elected Officials

Jesse Hastcoat
President

Bill Drissel
President
-Elect

Directors

Tuc Goodwin
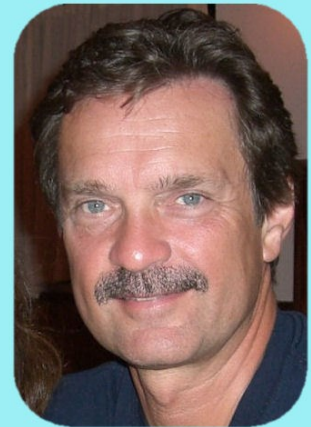
Chuck Stark
Treasurer

Sharon Dorsey

Lisa Katzenstein

Spike (Harold) Smith

Calendar

September 2015	October 2015	November 2015
Sept 19 8:00 am—2:30 pm	**Oct 17** 8:00 am—2:30 pm	**Nov 21** 8:00 am—2:30 pm

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