



The Datagram

newsletter

March, 2016

Volume 1, No. 3

From the Chair...

Dr. Ron Pike from Cal State Poly addressed the topic of information flow from the ethernet to your computer. This flow has traditionally been analyzed by several 'firewalls, each firewall making a separate assessment of the quality of the incoming data but not passing this quality information to succeeding firewalls. The result is that a data anomaly or CyberSecurity threat detected in an upstream firewall is not passed downstream and is subsequently lost. Current technology is centered around mechanisms to pass information from upstream to downstream firewalls, allowing the latter to do fine detail pruning of incoming data, and hence, do a better job of detecting and handling potential threats. The slides for this presentation are available on our web site (cssig.brats.com) and in the files section of Meetup.com/CyberSecurity SIG.

There is an upcoming event that may be of interest, the Cyber Grand Challenge (<http://www.cybergrandchallenge.com>) to be held in Las Vegas on 4 Aug 2016. It will be held in conjunction with DEF CON, a hackers' convention of, well, hackers. The interesting issue with the contest is that it is a Machine Hacking event. Software designed to facilitate hacking without human intervention. There is no cost, allowing money to be wisely spent gambling.

We are growing up but we need help from you. We need feedback on what we do, and a wish list of what you

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Next meeting:

March 23, 2016

6:00 PM Exec Com Meeting

6:30 - 7:00 PM Networking

7:00 - 8:00 PM Meeting

Dinner: \$10 (cash only)

ATEP, 15445 Lansdowne Road,
Tustin, CA, Room #D106

Presenter: Michael Lipsey, Cisco

This Month's topic

Michael Lipsey's presentation will be on Secure Branch Design. Join us for what should be a very interesting talk.

Microsoft Schedules Cybersecurity Webinar

The March episode of *Modern Workplace*, Microsoft's monthly thought-leadership webcast series is *Inside Security: Help Keep Your Organization Safe*, airing March 8th at 8:00 AM PST / 4:00 PM GMT.

To register for free, go to https://resources.office.com/modern-workplace-webinar-registration.html?wt.mc_id=eml_gmed_o365_mwep207-sales-wwregistrationemail_cta1&ls=externalmail&lsc=sales_wwregistratio nemail.

About the Speaker

Michael Lipsey, CCIE#42683, is a

Systems Engineer within Cisco's California Enterprise organization. He has over 20 years in the industry with most of his focus being on Enterprise Routing and Switching and Security architectures.



Prior to joining Cisco, he held engineering roles within a variety of different types of organizations, including manufacturing, educational, service provider, retail, search engines, and entertainment. In these roles, he has been able to develop an insight into the importance of secure wide-scale networking to support an organization's business objectives.

Contact Information

Web site: cssig.brats.com

Meetup.com/CyberSecuritySIG

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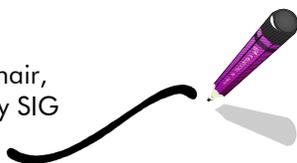
From the Chair, Cont'd.

want done. Our goal is to support your goals. It is clear that CyberSecurity is gaining a growing audience and that that audience has an equally growing need for personnel. In this context, there are active academic programs being offered at Cal State Poly and the Irvine Valley College - Advanced Technical Education Park (IVC-ATEP). Try them out. Let us know what you think of them and let us know if you want books, workshops, seminars, or lectures peculiar to your tastes.

All of the material of communal interest is located on the CyberSecurity SIG web site. Some of the material is located on our Meetup.com web site.

Art

(reluctant) Chair,
CyberSecurity SIG



February Meeting Report: SDN

by Carol J. Amato

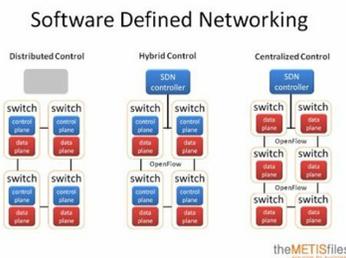
Dr. Ron Pike, assistant professor in the Department of Computer Information Systems at Cal Poly, Pomona, gave an informative talk on Software Defined Networks (SDN) to the SIG membership. While the detailed definition of SDN is currently being written, Pike stated that it refers to the use of software to control network devices and manage network traffic. It is also the separation of the control plane and the data plane. Network devices are updated and controlled via an open-flow protocol.

Current networks are brittle and inflexible, which has led to stasis. IP Version 4 addressing schemes are complex and require human intervention for both design and maintenance.

In addition, firewalls are a problem for packets, as they don't communicate from one firewall to another. SDN, however, offers network flexibility, amplifying and empowering network functionality. Software Defined Networks (SDN) simplify and empower network functionality. There are no more elections and complex device interactions. Instead, one or more controllers provide forwarding information to network devices. Packets are identified and traced all the way through the network and can be treated differently based on any number of factors. In addition, network addresses can be simplified.

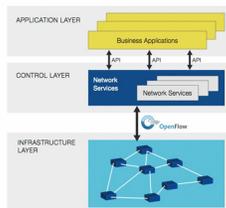
Each firewall checks a different level of information. If all firewalls see that information as a problem, it will be blocked. As a result, it can be diverted to a fake network to see what the senders are doing and where they originate. They may be using tools we haven't seen before. The diagram below shows the traditional model vs. the SDN model:

Traditional, API and Open Networks



Alternatively, the open SDN model looks like this:

Open SDN Model



The north- and southbound interfaces operate much more like a computer. Anyone can write these applications, so that means there are a lot of entrepreneurial opportunities with SDN. Dr. Pike added the caveat, however, that privacy issues are still a problem.

Swift Tech Symposium

Saturday, May 7, 2016, is set for the Swift Tech Symposium at Cal Poly-Pomona, Pomona, California. This is the 16th year that SWIFT has sponsored a hands-on technology conference. The purpose is to network students, professionals, and technology together.

This Tech Symposium is organized and operated by students and includes a series of presentations, workshops, and other activities. It establishes a connection between professionals and students that offers guidance and inspiration for students to pursue their passion in advancing the future of technology.

There are three levels of participation:

1. Simply attend, network, and learn.
2. Submit a proposal to present what you have been working on and learning. If you are interested in presenting, email techsymposium@calpolyswift.org.
3. Sponsor the conference.

For complete details, go to <https://techsymposium.calpolyswift.org>.



College Students Compete in Cyber-Security Project

The Associated Press reports that students from MIT and the University of Cambridge in England will spend a weekend hacking one another's computers. This is one of several joint cybersecurity projects between the two nations.

MIT's Computer Science and Artificial Intelligence Laboratory is hosting the event. Says Howard Schrobe, a principal researcher there, "This is the best of both schools working together."

The winners will receive cash prizes of more than \$20,000.

Place Your Ads in The Datagram

Do you have information about an academic program, seminar, workshop, symposium, presentation, or job listing related to cybersecurity? Consider placing an ad in The Datagram.

Ads are currently FREE and will be published for three months, after which they are renewable. They will appear simultaneously on the CyberSecuritySIG's website at cssig.brats.com for maximum exposure.

Submit a camera-ready, business-card-sized (3.5" x 2") .jpg file to Carol Amato, at stargazer@stargazerpub

Have suggestions for what you would like to see in the newsletter?

Send them to Carol J. Amato at stargazer@stargazerpub.com.

Request for Articles

This newsletter is open for article or information submission by all members of the CyberSecurity SIG. If you have something to say or leads on information that would be of benefit to the SIG, the members would love to read it.

Articles must be a maximum of 500 words and concern some aspect of cybersecurity. Submit them double-spaced via a .doc, .docx, or .rtf file to Carol J. Amato, Newsletter Editor, at stargazer@stargazerpub.com.

Speakers Requested

If you know of an expert in cybersecurity who is willing to speak to our CyberSecurity SIG, please contact our program chair, Angela Young, at angela.y@email.com.

2016 CyberSecurity SIG Executive Committee

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Amazon Drops Encryption on Fire Tablets

Amazon's updates to their Fire tablets do not support the encryption available on older versions of their operating system. This has industry experts very concerned. For further details, go to <http://www.cnet.com/news/not-in-my-house-amazons-unencrypted-devices-a-sitting-target-cybersecurity-experts-say/>

