

# NETWORKING 101

## WEST VIRGINIA NETWORK (WVNET)



# WVHETC 2016

WVNET's annual Higher Education Technology Conference brought together educators and students for a two-day event at the Morgantown Waterfront Hotel. The conference hosted 31 exhibitors and 58 informative sessions.



Opening speaker Nicholas David Bowman, Ph.D., Associate Professor of Communication Studies at WVU discussed how to use Social Media to foster student engagement. Dr. Bowman illustrated how social media might be dismissed as a distraction by some people, and this has similarities to the reaction people had to other emerging technologies, including writing. Social media linked to an educational course opens levels of communication that otherwise did not exist, such as an avenue to express ideas by someone who might otherwise stay quiet, or a familiar platform where study-related messages can be delivered beside personal content.



Presenters from numerous West Virginia institutions delivered sessions on topics including career and professional development, e-learning and distant learning, student success, big data, "green" computing, web development, security and network management, enterprise resource planning and social media. There was also a "Poster Session" where presenters prepared a display about a topic and conference attendees roamed from one to the next, discussing the topics with presenters as they toured the session. The poster session combined with vendor exhibits to foster an impressive interaction between attendees, presenters and exhibitors.



Thirty-one exhibitors from major educational technology companies participated in the WVHETC. Among them were representatives from Hewlett Packard Enterprise, Blackboard, Evisions, Extreme Networks, Cisco Systems, Viewsonic, and Ellucian. The exhibitors brought excellent samples of new technology tools designed to advance learning. There is a great benefit in experiencing new products first-hand, and conference attendees got that opportunity here.



WVNET's Social Media Team went above and beyond, as usual, to post, tweet and snap the conference as it unfolded. Working together with students from WVU's COM Studies program, the team captured many of the feelings and ideas in an impressive stream that you can still experience on Facebook, Twitter and Instagram.

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# WVHETC 2016

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Karen Rhodes from Hewlett Packard Enterprise was the Tuesday keynote speaker, who talked about the power of curiosity and how it drives us to learn. Karen shared a collection of stories relating the advantages of a dress, the importance of saying "I don't know," what it means to "bake water," how there are at least three ways to do something, and some impressive work being done in computer technology, thanks to curiosity.

Dr. Monica Brooks, Associate Vice-President for Libraries and Online Learning at Marshall University, accepted this year's Outstanding Service Award. Dr. Brooks has been recognized by numerous award and grants, and attained positions of great importance and impact to the educational community. She has served on numerous statewide committees and has been a coordinator, presenter or speaker at more than 40 conferences. As a teacher, she has taught over a dozen courses and authored over a dozen publications. She is a valued member of the advisory board for WVROCKS, where she also teaches Advanced Digital Literacy Skills as a member of Adjunct Faculty. The WVHETC congratulates Dr. Monica Brooks on this well-deserved accolade!



With only two days to accomplish so much, the WVHETC passed by quickly. Feedback from attendees, presenters, exhibitors and speakers suggests that the conference was a great success. We look forward to hosting another WVHETC next year (tentatively on October 2-3, 2017) and we hope to see you there! *(Guest article by WVNET staff member Mike Karolchik)*

## A NEWLY DISCOVERED ANDROID DEVICE ZERO-DAY VULNERABILITY: BADKERNEL

**The BadKernel flaw is trivial to exploit, just like Stagefright.**

In 2015, researchers from the Chinese cyber-security firm Qihoo 360 discovered that they were able to use Google's V8 JavaScript engine bug to run malicious code on Android devices. This affected the Google V8 JavaScript engine between versions 3.20 and 4.2 and was supposedly fixed that summer. In August 2016 they discovered that the V8 issue also affected a whole range of Android-related products where the older V8 engine versions had been deployed.

This bug, nicknamed BadKernel, allows attackers to steal data from the device, take over the user's camera, intercept SMS messages, and do anything else they want. Since this was an RCE (Remote Code Execution) flaw, the attackers had full control over any affected smartphone. Because the BadKernel flaw can be exploited just by loading the content of a malicious web page, attackers face no difficulty in weaponizing and deploying BadKernel exploits. Hackers primarily use socially-engineered emails and SMS to encourage users to click on a link. The device continues to operate without visible signs of infection.

Google ships the V8 engine with the Chromium mobile browser framework, used for mobile browsers such as Chrome and Opera. The V8 engine also ships with the WebView Android component, which mobile developers use inside their apps to view Web content inside the application, without opening a dedicated browser. Currently, many popular apps such as WeChat, Facebook, Twitter, or Gmail, use the WebView component. Vulnerable WebView versions are also the default on Android 4.4.4 up to version 5.1.

[Trustlook has a list of affected phones.](#) "Since many phones are not using the most current browser software, I expect this zero-day attack will be used widely by hackers," said Allan Zhang, chief executive and co-founder of Trustlook. "Users should run a quick scan of their phone and update their browser if they are affected."

The fix is being rolled out by manufacturers but given Android's fragmentation and the number of older versions in use, it is unlikely to be useful except for late-model smartphones. Until then, extreme care is advised for older handsets – don't follow links in emails and SMS. *(Guest article by WVNET staff members Steven White and Randall Long)*

## FROM THE DIRECTOR



This month, WVNET had a surprise visit from one of its most accomplished alumni, Addison Fischer. You can read all about him at: [https://en.wikipedia.org/wiki/Addison\\_Fischer](https://en.wikipedia.org/wiki/Addison_Fischer)

A WVU grad, Addison was one of the first WVNET employees back in the early 1970's. He took care of our IBM computer. While working on it, he figured out a program to make it run 40% faster. He sold that to IBM and took his money to

Silicon Valley. There he started many tech companies including VeriSign. Suffice it to say, he became very, very successful!



L-R Addison Fischer with President Gee

Addison was here with his lovely family to visit WVU and expressed to President Gee a desire to see WVNET one more time before he flew back home. Dr. Gee brought him by where several employees took him on a tour of the building (which hasn't changed much since he worked here!)

Addison visited his old office and toured our data center. Inside, WVNET has some "museum pieces" including the old IBM input devices which he used way back in the day. He had a simply wonderful time visiting his old employer and we were delighted he stopped by.



WVNET has a long history of employing brilliant, talented employees. Addison was one of the first and he has been an inspiration to many of those who followed in his footsteps. We are thrilled that he stopped back by and hope he visits us again soon!

## CUSTOMER SATISFACTION SURVEY And this month's winner is...

Halloween is nearing and I know that's an exciting time for many children as well as adults as we celebrate the traditions of putting on costumes and playing on our human fears while getting candy for the kids and creating lots of sleepless, sugary nights. I know that my seven year old will be ready to get her fair share of candy, as she's already picked out her costume as well as her bucket for sugar collection. My one year old will be experiencing it for the first time and needless to say it will be an eye opening experience for him. Nevertheless, WVNET wishes everyone a safe and adventurous Happy Halloween.



Each month, WVNET recognizes a customer who took the time to fill out our Customer Satisfaction Service Survey to let us know how we are doing. We thank everyone who takes that extra few minutes to give us advice, kudos, or criticisms that will help us improve our service. This month we would like to congratulate our winner, *Kathy Hawks, an instructor from Concord University*. Kathy used our OZ Ticketing System to send in a ticket to our Blackboard team, spearheaded by the Director of Distance Learning and Educational Services, Dr. Mary Stewart. Dr. Stewart took this ticket underneath her guidance directly and worked back and forth with Mrs. Hawks to repair several broken links within her Blackboard Class for WVROCKS, our on-line learning initiative founded by Executive Director of WVROCKS, Dr. Roxann Humbert.

Kathy was very impressed by the service she received, leaving the comments, *"I love the support I receive from WVNET! Always there, always willing to help, always a good attitude!"* I would say that one of our goals is to support education within the State of West Virginia in whatever way we may assist. Our Blackboard team at WVNET takes great pride in the service they provide and this is just one example. They work countless hours to make sure that online education, supported by us, in the State of West Virginia is a positive and rewarding educational experience for both student learners and instructors alike.

As always, at the end of every month, we will draw a winner and contact them by email and then send WVNET memorabilia in appreciation. Please complete our survey by looking within the incident email of any interaction that you have had with us. All comments are taken seriously and help to improve what we do on a daily basis. Thank you *Kathy*, and thanks again to all our customers who continue to shape and improve WVNET. *(Guest article by WVNET staff member Booker Walton, III, pictured.)*

## PASSWORD RESET ANSWER BEST PRACTICES

"Forgot your password?" is a link many of us have had to click. Often called "secret" questions and answers, security questions and answers are often used to recover forgotten passwords. While this function is a godsend if you really have forgotten your password, without some care, it makes it much easier for someone to access your account without your permission. Some people think that security questions are an effective and useful security measure. However, the majority of pre-generated questions are fairly simplistic in nature and can lead to insecure answers. Additionally, the password reset questions, which are often identical on other websites, are vulnerable when one account is compromised.



A recent 'Security Adviser' [article in InfoWorld](#) suggests:

- Treat the answers like passwords.
- Make all the answers separate.
- Never use the real answer. Don't even use possible fake answers that look realistic.
- Be sure to never repeat the answers between websites.

Of course, this means keeping a record of these answers as one does with passwords which is an inconvenience. [Password Managers](#) are very useful for this. Also, whenever possible, switch to two-factor authentication. So what can you do right now? Most importantly, go to your web accounts right now and check your security. If you have weak security questions, change them. If you don't have strong, unique passwords change them. *(Guest article by WVNET staff members Steven White and Randall Long)*

## SCANNER SENT YOU A DOCUMENT? BEWARE OF MALWARE ATTACK

WVNET mail filter administrators have noticed a recent increase of emails from 'scanner@your.domain.' Your domain has not been hacked or your email or other servers compromised. Your administrators are not sending the emails. They are just innocent victims in exactly the same way as every recipient of these emails.

Our mail filters have been catching them. However, no mail filter system is perfect. If one does escape our detection, the signature of this type of email is often a brief message (e.g. "Please find attached your recent scan") with a subject line of "Scan from..." and some copier model. Attached to the message is often a Microsoft Word document with a malware payload. If you have a scanner attached to your network which is configured to email scans, be aware of the message before opening any attachments. Forewarned is forearmed. *(Guest article by WVNET staff members Steven White and Randall Long)*

## MORE LIFE FOR ORACLE FORMS

Thanks to some negotiating with Mythic, our Oracle Service Contract provider, WVNET has successfully extended support for Oracle forms to December 2017. This will allow us to continue running Banner 8 while we are making the transition to Banner XE. We may also be able to get an additional extension if needed. WVNET will keep you aware of the situation while we work on this important system upgrade. *(Guest article by WVNET staff member Dana Keith)*

## DOES YOUR CHILD NEED ASSISTIVE TECHNOLOGY IN SCHOOL?



*Assistive Technology Showcase* — The West Virginia Developmental Disabilities Council (WVDDC) and West Virginia Advocates, Inc. (WVA) developed "A Parent's Advocacy Guide to Special Education" for family members, students, educators and associates for students with disabilities. This companion guide to the WV Department of Education Policy 2419 was created in response to parents' requests to have instruction and materials to help them better understand special education policies and procedures in West Virginia.

The guide shares information on the assistive technology (AT) evaluation process, including a sample letter that parents may use to ask the school to complete an AT evaluation. To access the guide, visit the WVA's "Resources" page at [www.wvadvocates.org](http://www.wvadvocates.org). You can ask for a free copy of this guide by calling WVA at 800-950-5250. *(Guest article by WVNET staff member Fran Barnes)*

## MU Grad Students winners of essay contest

By JOSEPHINE MENDEZ

**TheHerald-Dispatch**

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HUNTINGTON — Two Marshall University graduate students were the recipients of the 2016 Dan O'Hanlon Essay Competition at Marshall University.

Greg Ward, 45, was awarded first place and \$1,000 and Cindy Krepps received second place and \$500.

The two were presented their awards and prize money at a presentation Monday in Old Main.

Both Ward and Krepps are part of the university's graduate program. Ward is pursuing a master's in teaching with the hopes to become a high school history teacher and Krepps is pursuing a master's in business administration.

The competition was established in 2009, after an anonymous donor requested that Marshall find a way to promote scholarship related to the Constitution and simultaneously honor O'Hanlon, a retired Cabell County Circuit Court judge. Prior to his long career on the bench, O'Hanlon served as a professor and chair of the Marshall University Criminal Justice Department.

This year, contestants were asked to write about the Electoral College, which is a body of people representing the states of the U.S., who formally cast votes for the election of the president and vice president. They were asked to argue whether the Electoral College should be continued, abolished or reformed.

### Larry Butcher/For The Herald Dispatch



*Judge Dan O'Hanlon, from left, Cindy Krepps and Greg Ward pose during the Dan O'Hanlon Essay Competition and award ceremony on Monday at Marshall University. Ward was the first place winner and Krepps was second.*

Patricia Proctor, director of the Simon Perry Center for Constitutional Democracy, which administers the contest, said this was a unique year for the contest. She said not only did they have the highest participation, but this was also the first time both of the winners were from the graduate program.

She added that interestingly, Ward and Krepps also took opposing sides on the issue.

Ward wrote in favor of the Electoral College and said more people need to appreciate the reason behind its existence.

"(The Electoral College) may not be perfect but they are there because people in the past tried to balance two competing forces and if we change something, we eliminate that balance and that is dangerous," he said.

While Krepps acknowledged the validity of Ward's points, she said the system is now outdated as demonstrated in past elections when the presidential candidates who received the majority of the popular vote failed to receive enough votes from the Electoral College to clinch the presidency.

"It used to be that you could not access the information about your candidates but it's as easy as pulling out your phone," she said. "Years ago people were not as knowledgeable about candidates and really needed someone to rely on to get the information and make an educated vote, but now most of America can educate themselves and have an educated vote."

Monday's presentation was one of a multitude of events planned at Marshall University in celebration of constitution Week 2016.

"It is really important for students to understand the rule of law and the fact that the Constitution and the rule of law is what makes Americans free," O'Hanlon said "It's really the core of our democracy."

***(Reprinted with permission from TheHerald-Dispatch)***



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### Remembering Dr. Wayne Muth...

Word has been received of the passing of former director Wayne Muth on October 6, 2016. Wayne was the Director of WVU Computer Center, WVNET's previous incarnation, from 1969-1977. During his tenure we grew from a local computer facility to a statewide computer network thanks to Muth and his brilliant and clever staff. Muth was very proud of his accomplishments at WVUCC. In later years as WVNET was born, many new employees learned computer science in classes taught by Dr. Muth at WVU. Dr. Muth was one of the people who collaborated to name WVNET after we transitioned from the WVUCC. He commented, "I do remember that for a while the tentative name was envisioned as WVTEN,

*i.e., West Virginia Technical and Education Network...I'm glad we kissed off that name!"*

Wayne earned his bachelor's from the University of Colorado and his master's and doctorate from Iowa State University. He was professor emeritus at West Virginia University. After completing his active duty in the Navy, his professional accomplishments included working for Martin-Marietta as a research scientist on the Titan Missile, establishing the Computer Science Department at Southern Illinois University, becoming the director of the Computer Center at WVU and finishing his career as chairman of Statistics and Computer Science at WVU. *We send our condolences and respect for our former leader who helped to make WVNET possible.*

### UNITED WAY OF MONONGALIA AND PRESTON COUNTY KICKS OFF 2017 CAMPAIGN

The United Way of Monongalia and Preston Counties annual fundraising campaign provides funding to 52 programs at 27 health and human service agencies. Over 104 workplace campaigns take place throughout Monongalia and Preston Counties. The 2017 goal is \$1,550,000. When you give to United Way of Monongalia and Preston Counties—what happens? You **CHANGE THE STORY** for local people in need. And you get something back, too. Your gift is more than charity — it is an investment in a comprehensive strategy that helps people now and proactively strengthens our community for generations to come. That changes everything.



Here are 10 ways a gift to United Way help to *change the story* for people in need:

1. Men and women facing homelessness have a place to stay
2. Kids are not going to bed hungry
3. New parents are prepared to support their children
4. More children have quality childcare
5. Students are paired with caring mentors
6. More children are ready for kindergarten
7. Families are financially prepared for the future
8. Local students are ready for the workforce
9. Families have warm, stable homes
10. Teachers don't have classrooms full of hungry students each day.

United Way of Monongalia and Preston Counties runs the **second largest** workplace giving campaign in West Virginia. They have been serving our local community for more than 79 years. In addition to supporting all these charities, United Way develops and aligns programming specifically around education, income, and health; the building blocks of a good quality of life. United Way helps coordinate numerous community-wide projects, in addition to the *workplace campaigns*. A few of these include: *the annual Holiday Food and Toy Distribution, Winter Outerwear Collection, Warming Hands Warming Hearts Heating Fund, MyFreeTaxes.Com, Food and Hunger committees, and many more.* WVNET Media Services staff member Fran Barnes has coordinated WVNET's participation in the United Way statewide employee campaign for over 15 years. Together with her teammates organization wide, she helps *Change the Story* in Monongalia and Preston Counties. *(Guest article by WVNET staff member Fran Barnes)*