

NETWORKING 101

WEST VIRGINIA NETWORK (WVNET)

West Virginia Higher Education Technology Conference 2016 (WVHETC 2016) will be held September 26-27, 2016, at The Waterfront Hotel in Morgantown, WV. The conference theme is *"Transform Technology: Share, Educate, Secure."* You may register for the conference and obtain more information here: wvhetc.com Attendee *early* registration at \$125.00 is open through August 29. The Call for *Poster* Proposals opened on August 18 and offers a discounted registration at \$65 if a proposal is accepted. Two pre-conference sessions at \$25.00 each, one on Blackboard—Microsoft Mix and one on DegreeWorks Scribe, will be offered on Monday, September 26, from 8:15-11:15am. WVHETC 2016 will start with the opening session luncheon and keynote at 11:30am on Monday, September 26.



Opening keynote speaker on Monday, September 26, is **Nicholas David Bowman, Ph.D., Associate Professor of Communication Studies at WVU** who will speak on *"Where We're going, We Don't Need Pencils: Using Social Media to Foster Student Engagement."*



Advances in communication technology have provided the opportunity for students to connect with themselves, their peers, their instructors and their lessons far beyond the confines of a brick and mortar classroom. Through networked technologies, students are able to engage and pursue learning goals in an increasingly natural and expansive digital space: asking questions to and seeking answers from an accessible learning community that can be as small as a single private e-mail or as large as the 400-million strong Twittersphere.

Conversely, such unbridled connectivity has disrupted the normally safe spaces inside the classroom - student failures are places on semi-permanent and public display, students and teachers become socially enmeshed in unexpected and unwanted ways and students become exposed to poisonous social interactions. Moreover, as students continue to adopt personal communication

technologies (such as smartphones and tablets), their educational potential is often hindered by economic and digital literacy gaps.

The past, present and possible future roles that communication technology can play in primary, secondary, higher and lifelong education will be discussed. As a mediated communication scholar, he will specifically focus on the role that social media can play in removing access barriers between students, their teachers and their lessons, in an effective (and cost-efficient) way.

Closing keynote speaker on Tuesday, September 27, is **Karen Rhodes, SLED Chief Technologist Central US** who will speak on *"Curiosity—The Most Important Skill in Technology For the Future."*

The fundamental desire to learn or know is key to the technology of tomorrow. The technologies that will be pervasive in 10 years have only been conceived of by a handful of people on the planet today. Skills that allow you to operate technology today may be obsolete in just a few years. Curiosity is a skill that will keep you learning and engaged for whatever the future holds.



WVHETC 2016 will offer participants 2 pre-conference workshops, 50+ concurrent sessions, and 20+ exhibiting vendors. The conference will conclude on Tuesday, September 27, with an Exhibitor Reception in the Exhibitor Hall from 3:00-4:00pm.

(Guest article by WVNET staff member Fran Barnes)

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WV Statewide Technology Conference 2016 Resounding Success!



The 12th annual conference of its kind, WVSTC 2016 was another resounding success! **"Innovate. Empower. Impact the World through STEM"** was the theme of the conference. Held at The Waterfront Hotel and the Morgantown Event Center, the conference attracted over 400 attendees who enjoyed 131+ concurrent sessions, 74 exhibitors, 1 STEM Playground and 2 amazing speakers. This year's WVSTC speakers represented prestigious training efforts from some well-known companies.

Opening keynote speaker **Kelly Reddin, Global Master Trainer, Lego Education**, talked about the importance of creativity in an interactive session using Lego blocks. Everybody was tasked to build objects, a duck and a tree, using only a small set of blocks. The variety of creations made a strong example of how people think differently, and that everyone is creative.

Closing keynote speaker **Brent Frey, Apple, Inc.**, discussed change and how everyone can code. He introduced participants to the Swift programming language which was developed by Apple and is being offered to schools. Teaching applications including "Swift Playgrounds" easily teach people how to code in Swift. Swift can be used to develop many types of software including mobile phone applications.

Technology Integration Specialists (TIS) candidates were given an added bonus to their training — **The Coopers Rock Professional Learning Expedition**. It provided the opportunity to learn new skills related to instructional practice, technology integration and professional development planning and delivery. Participants worked at locations around Coopers Rock State Park conducting experiments, creating materials and exploring aspects of the park through activities, grounded in WV curriculum standards, that promote student engagement, the use of technology and STEM focused instruction. **Mark your calendars now for WVSTC 2017 — The Waterfront Place Hotel, Morgantown, WV — July 18-20, 2017. [See more conference pictures...](#)**



Kelly Reddin, Lego, Opening Keynote Speaker



Legos — Dan O'Hanlon, Brenda Morris, Sterling Beane



Closing Keynote — Awards Luncheon



Exhibitor Area — Prize Giveaways

FROM THE DIRECTOR



What a great conference! WVNET just put on the 12th annual West Virginia Statewide Technology Conference. This year we had almost 500 attendees, hundreds of concurrent sessions and two dynamic keynote speakers from LEGO and Apple. A huge roomful of educational technology vendors rounded out a successful event.

Thanks to all who attended, to those who worked so hard to make the conference a success and to our social media team which broke all records with our online presence this year. The communications group also arranged for two terrific TV news interviews and thousands of views on Snapchat and other locations. Amazingly, after such a wonderful event, the team is already working to line up next year's keynote speakers. We hope to see you all there.

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

It feels as though summer has gone by rather quickly. Schools are back in session and the air will be filled with footballs at high schools, colleges, and universities across the State of West Virginia. More important than the athletic side, the academic education of our future West Virginia workforce is of paramount importance to K-12 schools, colleges, and universities alike. It is impressive the ways that education has changed. No longer do students have to come to campus to get a degree. Online learning and learning management systems have completely changed the game when it comes to student success and alternative methods of education. WVNET is proud to produce the West Virginia Remote Online Collaborative Knowledge System (WVROCKS), reaching out to adult learners around the State of West Virginia and giving them a chance to finish a degree when they otherwise may not due to life and family demands.. This online Blackboard-based LMS continues to increase its enrollment each semester with professors at different institutions around the state offering their classes through WVROCKS.



Not only do we offer online learning, our HDI award-winning help desk continues to offer premium Blackboard support services to institutions. Dr. Mary Stewart and Blackboard Specialist Cory Morrison provide second-level support for the Blackboard Graphical User Interface, while Blackboard Systems Support Specialists Jonathan Lynch and Gerald Headley offer database and 'behind the engine' support for Blackboard. It is no wonder with a team such as this that our institutions of higher learning rely on WVNET to host and support their Blackboard instances. We thank each institution profoundly, and take the opportunity very seriously to be your one stop, full service LMS provider.

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, *Sherri Ritter, Director of Digital Learning/Assistant Professor at BridgeValley Community and Technical College*. BridgeValley is an institution that is provided with premium support from WVNET. Sherri created a ticket in our OZ ticketing system about an error that an instructor was seeing in their class. NOC Operator Tony Masi diagnosed the problem by simulating the professor's environment. He determined that the problem wasn't related to Blackboard but rather to the individual computer accessing the LMS. He gave proper instruction to Sherri, who relayed it to the instructor, allowing them to continue their work.

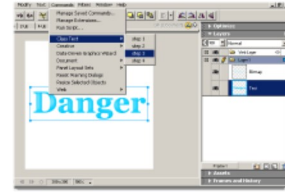
This is a perfect example of WVNET supporting institutional missions of providing students with an opportunity to learn. We strive to make technology a positive experience for students and instructors alike, and we take great pride in being able to solve Blackboard problems of all types.

As always, at the end of every month, we will draw a winner, 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 Sherri, and thanks again to all our customers who continue to shape and improve WVNET. *(Guest article by WVNET staff member Booker Walton, III, pictured.)*

DEFENDER MX MIGRATION

WVNET is pleased to announce that our email filtering solution is being migrated to a new and improved version utilizing additional technology that will further protect our customers against email attacks. Here are some new features that our customers will see once the migration occurs:



Anti-spoofing

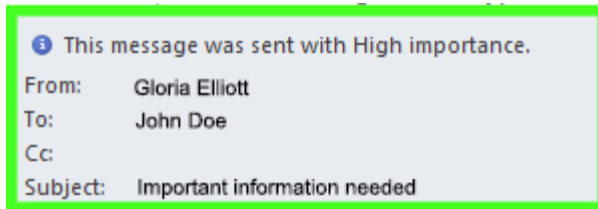
Spoofed email messages appear to come from someone trusted, but in actuality, they are from an unknown third party (replies to these messages look like they are going to someone trusted but actually go to this third party instead).

When a questionable message is detected, the display name shown to users as the **From:** address is modified to include a special character that can be used for quick reference by the recipient. *Please note that the red and green boxes around the images below are for illustrative purposes only. The **only** indicator that you will see will be in the text of the **From:** line.*

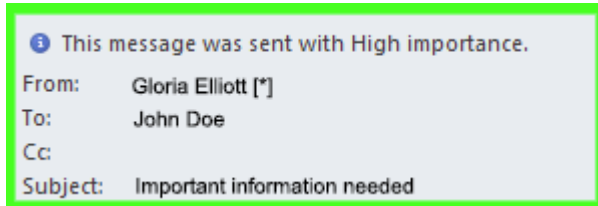
Normal e-mail should show just the person's display name or the name with a STAR next to it. The star indicates that the message was received through an encrypted connection.

Examples

Good email, received through unencrypted connection:



Good email, received through encrypted connection:

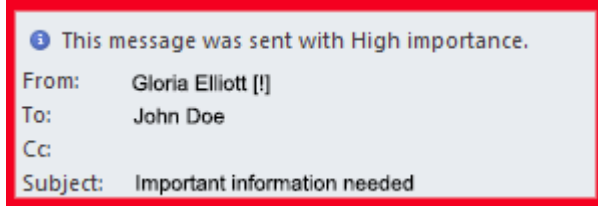


Bad/questionable e-mail will be modified in one of two ways. If the message sender doesn't match the host that sent the message, then the person's display name is modified with an EXCLAMATION mark (not a STAR). This is a common case where a user claims to be from one email system but is sending from another. Spoofed messages (where the address the message appears to be from is not true), will have the **From:** line modified heavily.

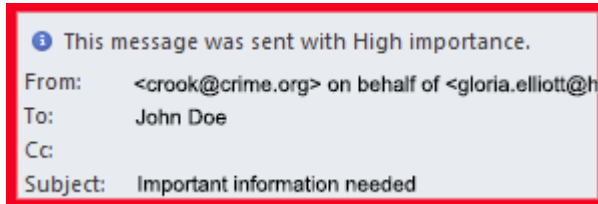
[Continued on next page...](#)

Examples

Bad email was sent from a host that didn't match the sender's e-mail address:



Bad email, spoofed message:



NOTE: None of these changes will affect the recipient's ability to reply to the message. It is purely for display purposes.

Click Whitelisting

Another new feature is 'click whitelisting'. Click whitelisting is a false-positive avoidance system. It will provide a link in a bounced messages response received by a sender when their mail is rejected by WVNET's anti-spam solution. The sender can then whitelist themselves by clicking the link and solving a Google ReCAPTCHA, after which they can **resend** their message and it will be accepted.

This is an example of the body of a bounced message:

```
Date/Time : Mon, 11 Jul 2016 14:25:49 GMT
ID       : 4064DB9E-FF87-4D84-ABEA-91C93132C7DB.1
Host/IP  : [undefined]
Auth User:
Sender   : <>
Recipient(s): postmaster@mgwrk01-mgw.wvnet.edu
Detail   : Error: Some recipients failed: <postmaster@mgwrk01-mgw.wvnet.edu>
```

postmaster@mgwrk01-mgw.wvnet.edu: 550 Poor GBUdb reputation for [129.71.2.214]; for whitelisting click: <http://whitelist> URL

Adding '[SPAM]' To the Subject Line

WVNET's email filtering solution works on an industry standard spam scoring of 0 to 10. A number of factors within the application determines these scores. By default, WVNET's email filtering solution considers a message to be Spam if it scores ≥ 5 . If a message matches this value, it will tag the subject with [SPAM] and sets a message header value of X-Spam-Flag: to YES. This header value can then be used by the email service, such as exchange, to place the message in the appropriate location (such as a Junk mail folder) as determined by the recipient's email administrator. Unless the message scores higher than the reject score, it will still be delivered. The reason for this is that messages between 5 and our reject threshold are considered 'low scoring' and have a high probability of being valid email.

[Continued on next page...](#)

Forward Suspected Spam for Inspection

WVNET email filter customers may manually submit suspected Spam for inspection by forwarding the message to spamsample@fsl.com. This is an account that is monitored by the manufacturers of the email filtering product used by WVNET. It's **crucial** that the message is forwarded with full headers.

Here are instructions for two common email clients (Outlook 2013 and Thunderbird) to forward a message with full headers

How do I forward an email with full headers in Outlook 2013?

- Start a new message.
- Select Attach Item from the toolbar.
- Select Outlook Item.
- Browse to the message you are inquiring about, and select it to attach it.

Or

- Start a new message.
- Move and resize the window so you can see your messages list.
- Select the email that you want to forward.
- Drag it and drop it into the body of your new message.

How do I forward an email with full headers in Thunderbird?

Thunderbird users have it easy. Just right-click on the spam message in their message pane and then select "Forward-> As Attachment.

How do I forward an email with full headers for other clients?

For issues with other clients, please contact your IT staff for assistance.

(Guest article by WVNET staff members Steven White and Randall Long)

MOZILLA FLASH SUPPORT

Mozilla's Firefox Browser Will Start Blocking Adobe Flash Content "not essential to the user experience" Starting August 2016

Adobe Flash has been slowly dying over the past decade, in part due to an absence of support on smartphones, and in part because it has become a major security issue. Now Firefox developers are reducing support for Adobe Flash. The stability, performance and security issues required when using Adobe Flash are not acceptable to them. Starting in August 2016, Firefox will block certain Flash content that is not essential to the user experience, while continuing to support legacy Flash content. Firefox will continue this trend by blocking specific Flash content invisible to users.



In 2017, Firefox will require click-to-activate approval from users before a website activates the Flash plugin for any content. Websites that currently use Flash or Silverlight for video or games should plan on adopting HTML technologies as soon as possible.

(Guest article by WVNET staff members Steven White and Randall Long)

Dan O'Hanlon, Director
837 Chestnut Ridge Road
Morgantown, WV 26505
304.522.7303
dohanlon@mail.wvnet.edu



Fran Barnes, Editorial Assistant
fran@mail.wvnet.edu

Also edited by:
Mike Karolchik, Manager
WVNET Media Services
mike@wvnet.edu



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IMAGE IO VULNERABILITY FOR APPLE IOS

A recent security hole in Apple's operating systems has been discovered that can be exploited through its default messaging, web browsing, or email software. Apple reports in CVE-2016-4631 that "A remote attacker may be able to execute arbitrary code."



Here's one example of how the attack works: A hacker creates malware that's formatted as a TIFF file, which is just another image format like JPG or GIF. Then the attacker sends it to a target using iMessage. Once the infected file is received, malicious code can be executed on the target device, giving an attacker access to the device's memory and stored passwords without the victim even downloading the image. This is especially effective because the messaging app automatically renders images on its default settings. This vulnerability is especially concerning as it can be triggered in any application that makes use of the Apple Image I/O API when rendering tiled TIFF images.

To update the iOS software on your iPhone, iPad, or iPod touch, connect your device to a power supply and connect to the Internet with Wi-Fi. Tap Settings > General > Software Update. Tap Download and Install. To update your Apple Watch software, go to your iPhone and open the Apple Watch app. Tap General > Software Update.

For latest information and support please visit <https://support.apple.com>

(Guest article by WVNET staff members Steven White and Randall Long)

CELEBRATING 1000 SARA INSTITUTIONS



As a State, West Virginia belongs to the National Council for State Authorization Reciprocity Agreements (SARA). Recently, the National Council for State Authorization Reciprocity Agreements (NC-SARA) announced that West Virginia State University is the 1,000th institution to participate in SARA, a nationwide initiative of states and institutions that makes distance education courses more accessible to students across state lines and makes it easier for states to regulate and institutions to participate in interstate distance education while improving consumer protection.

Drs. Mark Stotler and Paul Hill of the West Virginia Higher Education Policy Commission, the West Virginia state "portal" entity for SARA, were thrilled with the announcement. "As one of the first states in the Southern Regional Education Board (SREB) compact to gain SARA approval, it is exciting to see one of our institutions recognized for this milestone," Dr. Paul Hill Chancellor of the West Virginia Higher Education Policy Commission, said. "West Virginia State University joins 21 other West Virginia colleges and universities participating in SARA, a valuable partnership to reduce the complexity of the regulatory process, minimize institutional costs and increase student protections for online education."

For more information, please visit: <http://nc-sara.org>

(Guest article by WVNET staff member Fran Barnes)