

### WVNET RECEIVES NATIONAL RECOGNITION FOR SDN MOOC

#### WVNET Launches MOOC About Software-Defined Networking

Quilt member West Virginia Network (WVNET), created and presented a Massive Open Online Course (MOOC) about Software-Defined Networking (SDN) on COURSEsites by Blackboard. Entitled SDNOPS, this was the first MOOC ever to teach SDN using an interactive lab component and was recognized by top5onlinecolleges.org as one of the "99 Best Resources on Open Courseware and MOOCs," coming in 11th in the company of Harvard, Stanford, Ed-X, Coursera and other outstanding online course sites. The primary goal of the course was to provide practical knowledge and practical application, or as WVNET Director Judge Dan O'Hanlon likes to say, "See one, create one, and teach one." SDNOPS went beyond lecture and exam to include innovative hands-on labs taught by industry experts, Brent Salisbury, Dustin Burns, Bill Owens, and others. Learners in the course were fortunate to have access to resources contributed by Ivan Peprnjak, Greg Ferro, and Steven Wallace, groundbreakers in SDN theory. Although there were "self-checks" along the way to help learners build competency in the basic skills necessary to successfully configure and launch their own SDN, there were no exams. Instead, learners downloaded virtual machines and applied practical knowledge in an interactive lab environment.

*WVNET developed the MOOC not only from a passionate interest in SDN and online learning, but also as a learning experience so that it may assist other WV educational institutions in creating MOOCs.*

Students from around the world enrolled in the MOOC and achieved participation and completion statistics above the U.S. national average. In addition to international students enrolled in both undergraduate and graduate courses at colleges and universities in the United States, professionals from Australia, Brazil, Bulgaria, Canada, Denmark, Egypt, France, India, Korea (North & South), Mexico, Russia, and the United Kingdom also enrolled as students in the course.



Of the learners who participated in this grand experiment in MOOC pedagogy, 56% completed lab exercises to earn badges and 10.5% of the active learners completed the course to successfully create their own software defined network, while 5% of the total users during the live course completed all activities to earn their final SDNOPS badge. Of the 71% of the students who completed the course evaluation, 80% indicated that they enjoyed the course and would enroll in another course of the same design offered by WVNET. Moreover, 100% of those surveyed agreed that the tools and resources provided in the course were designed for universal access, and that they enabled students to meet the course outcomes.

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#### About WVNET

WVNET is the West Virginia Network, which is a dynamic service organization providing telecommunications and computing services within West Virginia. WVNET was created in 1975 to provide central computing facilities and wide-area network communications linking its "central site" computing resources in Morgantown with the campus computing systems at most of the colleges and universities throughout the state. WVNET is transitioning to expand its impact by offering services to State government, K-12, public libraries and county government. As a centralized state resource, WVNET reacts to customer needs by providing efficient and cost-effective deployment of technology, services and support. For more information see: [www.wvnet.edu](http://www.wvnet.edu).

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## BLACKBOARD SYSTEM ADMINISTRATOR TRAINING HELD AT WVNET

Blackboard System Administrator Training was held at WVNET on March 20-21, 2014. Content Management Training on the first day was intended for System Administrators who are new to the Content Management System in Learn 9. Topics included were: My Content/VHD, Course Content, Institution Content, Library, Portfolio, and Workflow. Participants received an overview of the Content Collection, with in depth coverage of as many features as possible within the time constraints.

On the second day, the training session for System Administrators covered the following topics: Enterprise Survey Tool, Service Pack 14 Upgrades, Digital Learning Resources Package (Streaming Server & Big Blue Button), and an Idea Exchange for Blackboard Best Practices. Institutional representatives had the opportunity to speak with a panel of members who sit on the Bb Oversight Committee in a Q/A session in the morning.



Training materials were made available through a new Blackboard Learn instance ([training.wvnet.edu](http://training.wvnet.edu)) dedicated specifically for training. The Blackboard System Administrator Courses will remain on the instance and accessible 365/24/7 for WVNET hosted clients. System Administrators who missed these training sessions can request enrollment by contacting Dr. Mary Stewart at WVNET. In addition to Blackboard, plans are underway to offer training on [training.wvnet.edu](http://training.wvnet.edu) for other applications within their suite of hosted services.

The training was offered free of charge as part of WVNET's Blackboard Hosting Services. To request/schedule training, please contact: *Marcie Layman*, WVNET Training Coordinator, 304.293.5192 x213, [marcie@mail.wvnet.edu](mailto:marcie@mail.wvnet.edu) For follow up information on Blackboard Training, contact: *Mary Stewart, Ph.D. Certified Blackboard Trainer, WVNET/WVROCKS*, 304.293.5192 x231, [mstewart@mail.wvnet.edu](mailto:mstewart@mail.wvnet.edu)



## LETTER TO THE EDITOR FROM ANNALIZA MARKS, GLENVILLE STATE COLLEGE



*Dr. Mary Stewart offered Blackboard training at WVNET during the month of March. This two-day training was provided free of charge and focused on Content Management, Enterprise Survey and the Achievements building block. Robin Cottrill and I, from Glenville State College, attended the two-day training.*

*One of the main features I found interesting during training was the management of the content collection. In addition to allowing our Education students access to an online portfolio, the content collection tool is a great way to share resources with other individuals across a department or campus wide.*

*The new survey collection tool is quite unique in the fact that it can be used for the entire campus, is sent to anyone with an email address, regardless if they have an account in Blackboard, and allows for anonymous surveys. This will eliminate the need for contracting outside agencies to conduct in-house surveys while allowing the institution to adhere to standards such as the Family Education Rights and Privacy Act (FERPA).*

*The achievements building block with ability to print certificates will be useful with our faculty and staff on our campus. Faculty can use certificates to reward our students for completing a project or course. The certificates will be useful during faculty orientation training in the fall or during professional development training, which is offered throughout the year.*

*Overall, I found the training to be enlightening and useful for our campus. Dr. Mary Stewart was kind, informative and didn't lose her cool, even when unforeseen problems arose. The fact that the training was free was just the icing on the cake and I appreciate Dr. Stewart and all of the WVNET staff for their hard work and dedication. Everyone at WVNET was so helpful and I felt welcomed to be there. Thank you WVNET and Dr. Stewart!*

### **Annaliza Marks**

*Administration Applications Software Specialist, Sr.*

*LMS Administrator, Instructional Technology*

*Adjunct Faculty*

*Glenville State College*

## BUILDING ANALYTICS

In continuing efforts to create collaboration and develop a broad use of analytics around West Virginia Higher Education, WVNET sponsored a three-day workshop on Argos reporting, hosted at Bluefield State University, March 18-20.

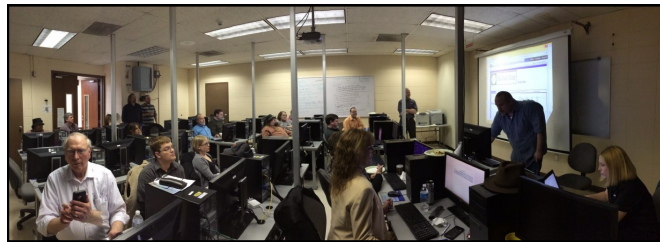
The workshop provided an opportunity for teams representing eight institutions to spend three days working on a specific project or report need. WVNET made arrangements for an Argos expert to attend and mentor the workshop so the attendees could receive personal technical assistance when needed. Zach Heath, Evisions Director of Professional Services, was the Evisions technical support person. Zach said of the workshop: *"I have been to many of these, but this is the best organized and productive one I have attended."*



This workshop, along with instruction in the use of Argos and reporting fundamentals, is part of the WVNET effort to support all of higher education in West Virginia. WVNET is committed to the use of technology and analytics to support and enhance the performance of our students. WVNET negotiated the state wide arrangement with Evisions to host the Argos reporting system providing a common reporting resource that is licensed for every person on the campuses signing a Memorandum of Understanding (MOU) with WVNET. Provided by WVNET, there have been five Argos training opportunities and four more are coming in the next year, including an advanced SQL class and another workshop.

WVNET established the Argos opportunity as part of the broader effort to provide support for analytics in West Virginia. WVNET has MOU's with three institutions and is working with others to transform transactional Banner data into a data warehouse. Mountwest Community and Technical College was the first of these to work with WVNET. Ten data marts are being developed by WVNET to provide detailed information about student retention, student debt, admissions tracking, program financial profiles, and others. These projects were a focus of the March workshop as WVNET partnered with analysts from Mountwest Community and Technical College to create tangible products resulting from the data warehouse initiative.

The Argos Reporting workshop will be repeated in the fall of 2014 as WVNET continues to collaborate and assist West Virginia Higher Education with graduating more students in the coming years. Information is the key to the decision process on how we can accomplish this, and transformation of data into information through technology is what WVNET is positioned to do. We will continue to reach out to the West Virginia community educational institutions, encouraging you to keep asking questions while we find the answers.



The Waterfront Place Hotel and Morgantown Event Center, Morgantown, WV, July 14-17, 2014

[conference.wvnet.edu](http://conference.wvnet.edu)

## WVROCKS FEATURED IN FAIRMONT STATE UNIVERSITY PRESS RELEASE



West Virginia's Remote Online Collaborative Knowledge System (WVROCKS) powered and staffed in part by WVNET was featured in a Fairmont State University press release (March 2014) about their Regents Bachelor of Arts degree program.

The article leads with the statement that *"Through the WVROCKS initiative launched by the West Virginia Higher Education Policy Commission, adult students at Fairmont State University have found greater success in completing a four-year degree."*

Pamela Stephens, Fairmont State University's RBA Coordinator commented that *"For increased flexibility, RBA students also have the opportunity to enroll in online, condensed, upper-division courses offered through WVROCKS."* As quoted in the press release, Fairmont has the highest enrollment in WVROCKS across the state. Of their 80 RBA students, 76 percent (61 students) are enrolled in WVROCKS courses for the spring 2014 semester, and those students are filling 160 seats, indicating that many students are taking more than one course through the statewide portal. Fairmont State's average attendance rate in portal classes is more than 90 percent and students maintain a course completion and pass rate of 86 percent. Online course offerings contributed to an increase of graduates in the program from 41 in 2009 to 64 in 2013. Stephens added that, *"RBA students sometimes have difficulty finding upper-division courses available in the right time frame to move them closer to graduation, and the courses offered through WVROCKS eliminate that barrier."*

RBA students from Bluefield State College and Marshall University are also enrolled in courses offered through WVROCKS. WVROCKS courses are taught by faculty from Bluefield State College, Concord University, Fairmont State University, Glenville State College, Marshall University, Shepherd College, West Virginia State College, West Liberty State College, and West Virginia University of Parkersburg, and West Virginia University. Courses taught on the portal cover a broad range of topics including: humanities, business, criminology, and psychology.

For more information regarding FSU's press release, contact:

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## HEARTBLEED VULNERABILITY MAY COMPROMISE YOUR PRIVACY

A recent exploit was found in OpenSSL that may lead to exposure of sensitive user data. OpenSSL is used to encrypt data between your computer and a site you are visiting that is using the HTTPS protocol. This vulnerability, dubbed HeartBleed (<http://www.vox.com/cards/heartbleed/how-does-the-heartbleed-attack-work>), has affected many servers on the internet as well as servers here at WVNET.

Affected sites include Facebook, Instagram, Pinterest, Twitter, Google, and numerous others. A list of some of the more public sites that have had issues can be found here: <http://mashable.com/2014/04/09/heartbleed-bug-websites-affected>.

This vulnerability can allow a third party to possibly intercept traffic that is encrypted and decrypt the information within, including usernames and passwords. There are several sites on the internet that can be utilized to check if a system is vulnerable to the exploit. Search the internet for "detect heartbleed vulnerability" to find one.

WVNET systems staff have patched all of our servers that were vulnerable to this exploit, and they have deployed a new SSL Certificate to secure all servers. If you have user-name/password access to any of our services, please change your password. Now is a good time to review password security. You should not re-use old passwords. Passwords should be complex in that they should include a mixture of upper and lower case letters, numbers and symbols. Passwords should be relatively long in length; many standards require at least 8 characters. Passwords should be unique for each account that you have.

Following all of these rules can sometimes be a challenge. One way to offset the issue of remembering passwords is to utilize a pass phrase generated from a word list, or from some memorable phrase and then mixing up the information within. Such as: The sun is shining today and it is beautiful = T\$ist&iB (this is just an example, please do not use this).

Another way to avoid memorizing complex passwords is to use a password manager, a program that stores all of your passwords in an encrypted database which you can access by supplying one master password. A password manager can even generate very long, very complex random passwords for you. Examples of password managers include:

LastPass - <https://lastpass.com/>

1Password - <https://agilebits.com/onepassword>

KeePass - <http://keepass.info/>

As a final note, be on the lookout for phishing emails about the HeartBleed bug - particularly those that claim to be notifications from password-protected web services. If a provider suspects their site may have been compromised, they may ask or require users to change passwords once patches have been applied. You should use the official password change page on each site to change your password, rather than following links that are emailed to you. If you have any doubts that HeartBleed related communications are legitimate, contact the WVNET Help Desk or Systems staff.

*Information provided by Steve White, Manager of WVNET Systems*

## FROM THE DIRECTOR



**Dr. James Phares**

I'd like to tell you about someone I have had the privilege of working with this last year, Dr. James Phares. He was appointed as the State School Superintendent a little over a year ago and he has just announced his retirement June 30th of this year. He came into the position at a tumultuous time and has done some truly remarkable things in his brief tenure. On his first day on the job, he called and asked if I could meet him for 90 minutes about Analytics. This is what we do when we look closely at the 23 years of data WVNET has from K12 and Higher Education. Dr. Phares was convinced that the answers to many questions about how we can better educate our children are contained in this data. Until someone organizes and makes sense of it, it is just data, not useful information. Fortunately, K12 has Juan D'Brot and WVNET has Dana Keith. Both of them are passionate about getting useful answers from this enormous pile of data. Both have assembled talented teams to do just that.

What Dr. Phares wanted to ensure, on his very first day, was that K12 and Higher Ed went hand-in-hand in this effort. He believed that together we could find answers that neither of us could have found going it alone. This effort has already begun to pay off. WVNET and K12 both have invested millions of dollars and hundreds of hours in this joint effort. Someday people in West Virginia will see what a visionary leader Dr. Phares was to make sure we all worked together. It has been an honor for me to work with him. He will be missed...



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## WALK 100 MILES IN 100 DAYS 2014



LaVonne Doljac (pictured) recently provided WVNET staff members with information on the *100 Miles in 100 Days Program* which is a program that WVU Healthcare does and WVNET is able to participate in. Last year, nearly 6,000 employees and family members participated in 248 teams throughout WVU Healthcare. The program goal is for each team member to strive to walk one mile per day or 100 miles in 100 days (equivalent form of other aerobic exercises also count, 20 minutes = one mile). Team members report miles walked to their team captain who then updates the team's mileage weekly. All individuals achieving the 100-mile goal will receive a t-shirt. WVNET has 8 people participating in the program this year which started on March 17 and ends on June 24, 2014. The team name is "WVNET Walkers."

## EMPLOYEE SPOTLIGHT — ROMAN CHUBY : )

Meet team member Roman Chuby, Application Systems Analyst Programmer-Lead, and one of the members of the WVNET OASIS Interface team. Roman lives in Brookhaven, WV, (Monongalia County) and has worked for WVNET for 32 years and the State of West Virginia for 34 years. Roman has a Master of Science Degree in Mathematics from WVU and a Bachelor of Arts Degree in Mathematics from Fairmont State College. In his position at WVNET, Roman creates efficiencies through interfaces and reports. Previously, he managed the College and University Financial System (CUFS and Advantage) for 20 years. Roman's goal is to transition the colleges and universities from Banner and WVFIMS to Banner and WVOASIS (Advantage). His hobbies include railroads and Lionel electric trains.



**Editor's Note:** *Speaking of trains, having a particular fondness for Lionel electric trains from childhood, I spoke to Roman about his hobby. For you train enthusiasts out there, Roman runs 18 tracks and everything is Lionel 0 and 027 gauge, with one MARX Bridge. He has 50 engines and 300 freight and passenger cars. Roman's basement train setup is a whopping 20 feet by 17 feet! The outer 12 tracks have 72" curves and the inner 6 tracks have 54" curves. The outer track is about 76' long and the inner track is about 10' long. All of the transformers are 80 watts except one. Roman has about 20 hours of work for each of the 12 outer tracks and the curves are slightly angled. All of the railroad names are West Virginia related --- B&O, C&O, N&W, WM, VGN, CSX, NS, CR, CH, AMTRAK, WV gasoline station tank cars, etc. Roman attends about 9 train shows each year and visits hobby stores whenever possible. Roman comments, "It is great for our marriage. Andrea shoves me into the basement for some peace and quiet."*

