

WHAT'S NEW

NEWS ABOUT CURRENT PROJECTS AT WV NETWORK

WINTER 2022



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WVSTC Director's Note Promotions and New Employees Department Updates



SAVE THE DATE! JULY 18 - 20, 2022 (EXHIBITOR EXPO - JULY 18 & 19)

MORGANTOWN EVENT CENTER AND MORGANTOWN MARRIOTT AT WATERFRONT PLACE MORGANTOWN, WV

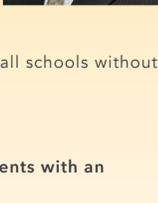
WVSTC is a prominent educational technology conference organized for K-12, Higher Education and State Government professionals. The 3-day event boasts attendance of more than 600 educators, consultants, administrators, and directors. The conference runs concurrent sessions that allow participants to stay abridge, network, and have insight into the latest education tech innovations.

2022 CALENDAR

MARCH 7	VENDOR REGISTRATION OPENS
MARCH 7	EARLY BIRD ATTENDEE REGISTRATION OPENS
APRIL 22	PROPOSALS DUE
JUNE 1	EARLY BIRD REGISTRATION ENDS
JULY 1	VENDOR PROSPECTUS DUE

From the Director!

Dr. Carl Powell, WVNET Director



While most of 2021 was spent adjusting to another year of the pandemic, WVNET still achieved success with several major projects. The most notable was our migration of our hosted learning management system from Blackboard to D2L's Brightspace. With a short holiday window to complete the move of all course material to the new LMS platform, the WVNET team completed the transition for all schools without disruption.

Other successful projects for 2021 include:

- Upgrading our hosted Degree Works application, providing students with an enhanced interface to track their progress towards their degree.
- Continuing our migration to the Oracle Cloud Infrastructure.
- Multiple web projects to improve overall design, transition to WordPress, update branding, and customize forms.
- Increased our overall network bandwidth and upgraded our network security appliances.
- Continued to provide 24x7x365 support through our Network Operations Center

In conjunction with our hosted applications, WVNET also provides deep discounts to all WV higher education institutions through group purchasing agreements with Ellucian and Microsoft. In 2021, this resulted in West Virginia colleges and universities saving over \$3.8M in software purchases alone. Add to that the expert technical talent and 24/7 support provided by WVNET and you can easily see how WVNET is a critical asset for the citizens of West Virginia.

Finally, as you trudge through the snow and ice of this winter and you daydream about the coming spring, be sure to put your sights on spending July 18-20 in Morgantown at the West Virginia Statewide Technology Conference. In addition to three days of speakers and topics to choose from, we will also be hosting a two-day vendor exhibition. Registration for the event will be opening soon in the coming weeks.

For more information, visit <https://wvstc.com/>. Enjoy the newsletter!

PROMOTIONS

Mike McDonald— Systems Administrator Supervisor

WVNET has promoted Michael to Systems Administrator Supervisor where he will oversee projects within the Systems Group Department and lead staff. Michael first joined WVNET in 2013 as a Network Operator. He enjoys working with hardware, software, and his skillset and desire to learn gave an opportunity to join the Systems group as a System Administrator in 2017. As System Administrator, he oversaw management of Linux and Windows servers and assisted in Data Center Management. Michael continued to grow and demonstrated proficiency in learning new systems and was promoted to Lead Systems Administrator in 2019. As Lead, he provided service level support for Banner, LMS, Email, Web Services, and core infrastructure in addition to his previous job responsibilities. Also, he has served as primary lead in the infrastructure migration of WVNET's on-premise Banner environment with Oracle Cloud Infrastructure. Michael likes to collaborate with colleagues on various projects, as well as, mentoring new staff to ensure they are able to understand the environment and quickly become valuable team members. Michael lives in Rivesville, WV, with his cat Bob. He enjoys playing games, 3D printing, drone photography, RC vehicles, and spending time with his family.



WELCOME NEW EMPLOYEES!

Brian Nine

Telecom Network Specialist II
Brian comes to WVNET's Telecommunications team with 20 years of professional IT experience including helpdesk, desktop support, server and application monitoring, and networking. He grew up in Terra Alta, WV, and obtained a Bachelor's degree in Computer Engineering from WVU. After graduating from WVU, Brian moved to Charlotte, NC where he lived twice for a total of 18 years. Brian has worked for two Fortune 500 companies, Wachovia Bank (now Wells Fargo) and Family Dollar Stores.

DaQuan Nix

Network Operator, DaQuan comes to WVNET's Network Operations Center from Single Digits, where he was a Field Technician providing IT support, equipment installation services to residents of rental properties and campus dorms. He has also worked as a general laborer contractor in construction and as a package handler for retail. DaQuan graduated from West Virginia Junior College with an Associate's Degree in Information Technology.

DEPARTMENT UPDATES

Finance and Business

The start of a new calendar year is always a busy time for WVNET's business office. Business office staff members are in the middle of the fiscal year, working on contract renewals, creating POs for new contracts, and keeping up to date with all things related to accounts payable and accounts receivable.

One big unexpected challenge the folks in the business office has been dealing with is Kronos, the automated payroll software used across the state. Kronos went down at the beginning of December 2021, posing a unique challenge to take a sure all staff members were paid correctly as payroll had to be entered manually. It took a lot of extra time and effort as time sheets and other spreadsheets had to be created to keep track of hours worked and leave time. With the cooperation of all staff members, WVNET was able to adjust and make it work. Staff were happy to have the system up and running again by late January.

A new phone system was recently deployed by WVNET. New phone numbers for the Finance-Business Office are:

Accounts Receivable
Libby Cress
lcress@staff.wvnet.edu
304-225-0451 ext. 50451

Accounts Payable
Buffy Vehse
evehse@staff.wvnet.edu
304-225-0487 ext. 50487

Billing and Procurement
Phil Snitz
psnitz@staff.wvnet.edu
304-225-0483 ext. 50483

CFO
Donna Meadowcroft
dmeadowcroft@staff.wvnet.edu
304-225-0472 ext. 50472

Systems Update

What is Single Sign-On and what does it do for Me?

Single Sign-On (SSO) is something that many of us use or have heard of but may not fully understand its meaning. Single Sign-On is an authentication scheme that allows a user to utilize one set of credentials to access multiple applications. However, there are variations in what this may mean. In its truest form, this allows a user to enter credentials one time and gain access to different applications and is often confused with the same sign-in which uses the same set of credentials for multiple applications.

Factor authentication uses an additional source, such as Duo, for an even higher level of security. Combining Multi-Factor Authentication with single sign-on software provides both increased security by requiring a user to validate their login with both a username and password and some sort of token as well as the convenience of being able to log in once to be able to access multiple applications.

Using Single Sign-on has many benefits associated with it. This includes reduced risk of compromised credentials for third party sites as information is not stored externally, reduced password fatigue and forgotten passwords, simplification of administration and administrative control, and better network security. All of these are achieved because SSO utilizes an authentication server that can have enhanced security applied to communicate directly with the 3rd party application and authentication source.

Beginning with Banner 9, Ellucian has moved forward with a plan to utilize single sign-on for its applications. To facilitate this, WVNET utilizes Ellucian Ethos Identity (EEI) to provide an SSO for some of our customers while others have gone with external applications that provide the same functionality. WVNET customers use these EEI servers to provide single sign-on access to Banner, Degree Works, Brightspace and various other applications. With this, users can seamlessly switch between those applications without having to log in multiple times and administrators can easily manage access to these applications.

But there are also disadvantages as well. Having a single set of credentials across multiple systems means that if that set is compromised, access can be granted to all systems. As such, using it places an even greater importance on using strong passwords and protection of a user's credentials.

SSO is a great way to help simplify access to applications for user's while ensuring that systems remain secure, but only if setup properly and continuing to educate users about good password practices. This is just a small snippet of what SSO is and it is just one piece in the Federated Identity Management that is becoming part of securing application access.

To help enhance security, Single Sign-on software can also be configured to use Multi-Factor Authentication. Multi-

Updates from the Development Team

The WVNET Development Team has been working closely with Arthurdale Heritage, Inc. to develop a new website for their organization. The redesign will update the look and feel and provide a better user experience.

Arthurdale Heritage is a non-profit organization dedicated to the preservation of the history of the nation's first New Deal Homestead Community in Arthurdale, WV. This project provides a unique opportunity for our team of designers and developers to apply our expertise to build a site that is educational, meets the needs of their community, and helps the organization grow.



The current website was moved to WVNET's managed WordPress hosting service in December. The team is providing consulting support services for it as well. We are working with the organization to improve managing events and their ecommerce tools. One of the major goals of the move was to improve the website's performance, which has been a success. We are seeing a marked increase in response times in the admin interface after the move to as well as an improvement with their site's database in managing media resources.

To discuss web or application development projects with the Development Team, send an email to wvnet.support@staff.wvnet.edu to schedule a meeting and review your project requirements.

WVNET Telcomm Update

In the last few months, WVNET's telcomm team migrated both WVNET and Higher Education Policy Commission (HEPC) phone service from Verizon to Segra. This transition was due to the State Voice Contract being won by Segra. New phones were deployed to every desk and much work behind the scenes was done to get the infrastructure up and running.

The telcomm team also recently created new encrypted tunnels for traffic to/from Oracle Cloud Infrastructure, as well as modification of our network to allow proper routing, and worked to document all public IP addresses being used in WVNET's 129.71.0.0/16 range. WVNET is now working with customers to verify they're using all assigned public IP's.

During the winter quarter, the telcomm team consulted with HEPC and Southern West Virginia Community & Technical College on their orders for new Cisco networking equipment. Both customers are upgrading all their routers and switches.

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