

# WHAT'S NEW

NEWS ABOUT CURRENT PROJECTS AT  
WV NETWORK

FALL  
2022

West Virginia  
NETWORK

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WVSTC

Director's  
Note

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WEST VIRGINIA STATEWIDE  
TECHNOLOGY CONFERENCE

## LEADING THE WAY THROUGH INNOVATION CHANGE



## West Virginia Statewide Technology Conference scheduled for July 19-21, 2023

It's time to mark your calendars again for the 2023 West Virginia Statewide Technology Conference. The annual technology conference will return Wednesday July 19th-Friday July 21st, 2023, to the Morgantown Event Center at the Morgantown Marriott at Waterfront Place.

Planning for the conference is off to a great start with returning co-chair Harmony Garletts, Client Services manager, and new co-chair, Sarah Barnes, Development Team supervisor. The committee has formed 5 workgroups to tackle planning checklists and has been recruiting committee members from across K-12, Higher Education, Government and more.

### Communications

This work group is responsible for planning the website design, coordinating with all groups on messaging and content for the website, design of all conference materials (program, signage, t-shirts, giveaways, etc.), advertising, social media, email campaigns, and other marketing activities.

### Content

This work group will be responsible for planning the conference program tracks, the call for presentations and presentation proposal review, scheduling sessions, recruiting presenters, and suggesting keynote speakers.

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## Vendors & Sponsors

This work group recruits vendors and sponsors, assists them with registration and conference check in, designs the vendor expo space and events, coordinates with Communications about messaging and handles any other promotional items with the vendors.

## Technology

This work group is responsible for planning and coordination of the technical aspects of the conference including networking, hardware (printers, computers, projectors), and other equipment or services needed.

## Conference Experience

This work group is responsible for planning the overall conference attendee experience. This includes conference layout, social events, food and beverages, entertainment, on-site attendee registration and general support during the conference.

Do you see something you would like to help with? We would love to have you join the team! Please email Sarah (sbarnes@staff.wvnet.edu) or Harmony (hgarletts@staff.wvnet.edu) to get involved. We will add you to our conference planning Slack workspace and meetings invites.

**The conference Call for Presentations is underway with a deadline for submissions set for February 1, 2023.** Attendees with accepted presentations will earn a discount on their conference attendee registration. Early proposal submissions have a higher probability of earning the discount as space may be limited.

For more information about the conference and to sign up for conference email updates, visit [wvstc.com](http://wvstc.com).



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# From the Director!

**Dr. Carl Powell, WVNET Director**



As we enter the final months of 2022, we continue to work on several large-scale projects:

- Planning for the upgrade of our data center power and cooling systems, especially for our telecommunications connections and co-located equipment.
- Installing a second, separate network feed into the data center to improve network redundancy and availability.
- Upgrading our network hubs to 100Gb circuits, allowing for non-disruptive growth of our bandwidth as traffic volumes continue to rise.
- Recruiting for several open vacancies on our staff, including Network Operator, and Network Telecom Specialist.

In October, I attended the EDUCAUSE 2022 conference in Denver. Of all the sessions I attended, the most memorable were:

- A presentation by Dreamworks on the volume of data created over 4 years for one 90-minute animated movie.
- An honest, blunt, and humorous discussion with Tara Swisher (journalist and podcaster).
- An overview of the probable impact of the upcoming November election on pending federal legislation related to higher education.

Finally, I would like to announce WVNET's new Deputy Director. Steven White was chosen to fill this top administrative position. In addition to overseeing the Systems and Operations Group and the Network Operations Center, Steve will also pick up oversight for the Telecommunications Group. Steve is a strong asset to WVNET, and I look forward to continuing to work with him in the years to come. You can read more about Steve and his impressive background in the promotions section later in this Newsletter.

**With that, I hope all of you have an enjoyable holiday season.**

# EMPLOYEE SPOTLIGHT

## WELCOME NEW EMPLOYEES



**John Taylor**, joined the Telecommunications Department as their new Telecommunication Network Specialist II on October 11th.

John is from Masontown, WV. He has an associate's degree in Information Technology focused on Routing and Switching and a CCNA certification. John was in the Marine's for 4 years and worked for the Federal Bureau of Prisons before joining the WVNET team. John specializes in telephone PBX, VOIP, fiber optic cabling and Cisco routers and switches.

**Cristina Moody** will join Client Services as the new Banner Finance Programmer Analyst on November 14th. Cristina grew up in Star, Mississippi and currently resides in Pearl, Mississippi. She has a bachelor's degree in Mathematics from Belhaven University, and a master's degree from The University of West Alabama. She has always wanted to pursue a PH.D. - but has not yet started on that journey! Cristina began teaching courses on campus at Hinds Community College. And, after obtaining her master's degree, Cristina taught on campus courses at Belhaven University. She now teaches online courses for Hinds Community College in Mississippi and Blinn College in Texas. Cristina is newly engaged and is excited for the next chapter of her life. Cristina enjoys traveling and always welcomes the opportunity for a getaway, especially if it involves the beach which feels like her home away from home. She also enjoys spending time with family and taking her dog, Magnolia, for walks in the evening. She looks forward to getting to know the WVNET team!



## We Want Your Feedback!

### Your satisfaction is very important to us.

WVNET has implemented a customer satisfaction survey link in our OZ ticketing system. When a ticket is closed, the reporter will receive an email update with a link to allow customers to fill out the survey, and, if desired, request a call from a manager. To access the form in the OZ email, click on the link.

If you're not using OZ but you wish to take the survey, please feel free to complete the survey at <https://wvnet.edu/satisfaction-survey/>.

[WVNET Customer Satisfaction Survey](https://wvnet.edu/satisfaction-survey/)

We look forward to hearing from you.

Have questions? Contact Harmony Garletts at [hgarletts@staff.wvnet.edu](mailto:hgarletts@staff.wvnet.edu).

# PROMOTIONS

## Steven White - Deputy Director



WVNET has promoted Steve to the position of Deputy Director. Steve is originally from Morgantown, WV and has spent the last 20 years working in the IT industry. In 1998, he obtained dual degrees in Electrical Engineering and Computer Engineering from WVU. He began his career in a CMMI 5 certified software development environment and later moved into server and network administration. Prior to coming to WVNET, he worked for various federal contracting organizations providing technical support for multiple remote offices. WVNET hired Steve in 2012 to initially provide server administration for Windows Systems, however, he demonstrated an impressive knowledge about other technologies and systems. He pursued the opportunity to become

the Manager of the System Administrator's group, taking on new challenges, responsibilities, and learning new skills, such as: Cisco Networking, Storage, and Linux administration, and as WVNET has advanced, his role expanded to include management of Banner/DBA and Help Desk group. Steve lives in Morgantown with his wife, Jessica, and two children, Elizabeth and Christopher. At home, his hobby is testing equipment, trying new programs, and learning the new advances of technology to make life easier and to protect his children in their online experiences.



## JOIN OUR TEAM!

WVNET is hiring for the following, full-time positions:

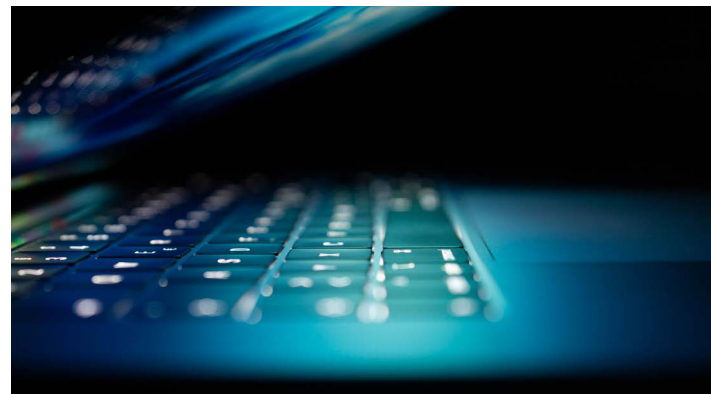
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TELECOMMUNICATION NETWORK SPECIALIST II

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NETWORK OPERATOR

Click on our website to view full job details and how to apply: [wvnet.edu/about/careers/](http://wvnet.edu/about/careers/). Salary commensurate with experience. Additionally, WVNET offers an excellent state government benefits package, including comprehensive health insurance coverage, retirement investing, and life insurance plans as well as generous amounts of vacation, sick, and holiday leave.



# STAFF RECOGNITION

# MOBY AWARD

Every month at our staff meeting, a WVNET employee is recognized for their exceptional work. The award is referred to as the “Moby” award (a whale of a good job!). The employee is chosen by the prior month’s Moby winner, and they are passed the traditional stuffed whale to display for the month. Congratulations and thank you for your hard work to the following employees who have been recognized so far this year:

January: **Cory Morrison**

February: **Phil Snitz**

March: **OCI Team  
JR Farley  
Scott Hofer  
Mike McDonald**

April: **Barb Long**

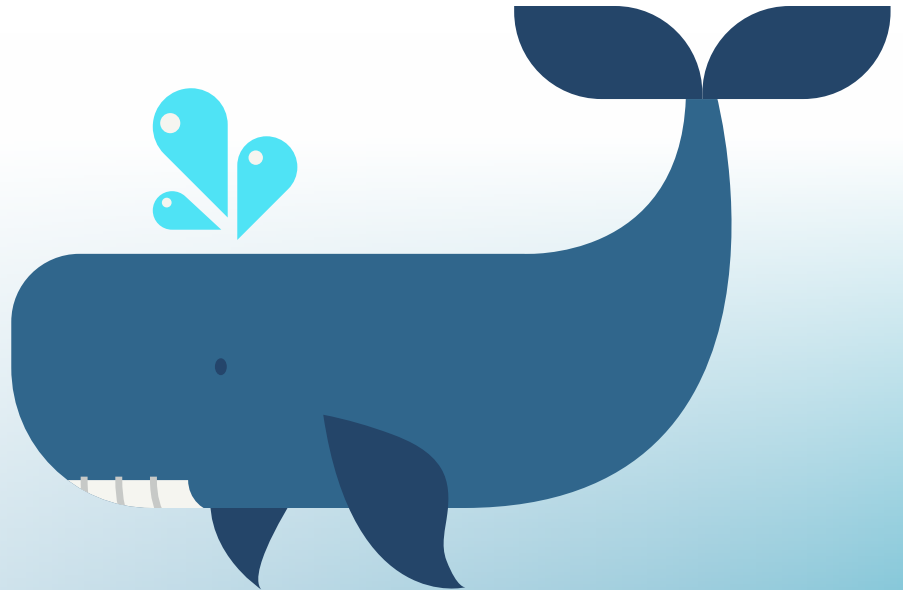
May: **Lisa Bridges**

June: **Sarah Barnes**

August: **Harmony Garletts  
Annaliza Marks**

September: **Kim Jenkins**

October: **JC Doll**



In honor of **Veteran's Day**  
WVNET would like to acknowledge  
our staff who have served.

Jason Chastain • US Air Force

Anita Davis • US Navy

Chevee Dodd • US Marine Corps

Scott Hofer • US National Guard/Desert Storm

Ed Leonard • US Navy

John Taylor • US Marine Corps





# DEPARTMENT UPDATES

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## Systems Update

### Automating with Terraform

Time is one of the most valuable assets we have and using that time wisely is key to being efficient and successful. Automation is one of the ways we can increase our efficiency and productivity when deploying technical infrastructure. Two of the tools WVNET uses for deploying infrastructure are Puppet and Terraform.

**Puppet** is a configuration automation platform that WVNET uses to maintain the configuration of our Linux based servers used to host various services for many customers across the state, as well as internal projects for WVNET. With the number of systems WVNET hosts, having a centralized configuration management system is key to maintaining both productivity and efficiency when managing that environment as opposed to doing it all manually.

**Terraform** is an Infrastructure as Code (IaC) automation platform used by WVNET to deploy and manage virtual infrastructure in our Oracle Cloud environment. Deploying and maintaining key infrastructure efficiently and consistently is especially important and using Terraform to deploy our infrastructure ensures that we can do exactly that.

#### Some of the Terraform core concepts include:

**Providers:** Providers are the plugins used by Terraform to interact with the provider's related API and resources, such as the OCI provider we use for Oracle Cloud Infrastructure.

**State:** State is a cache of information about the infrastructure managed by Terraform and all related configurations.

**Resources:** Resources are the infrastructure objects such as compute instances, virtual networks, load balancers, etc.

**Plan:** Plan is one of the stages in Terraform that is used to determine what needs to be created, updated, or destroyed to match the desired state. This is just a validation check where it makes no real changes.

**Apply:** Apply is another stage that also checks for changes the same way as plan, but this stage applies real changes and updates the infrastructure's state.

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A Terraform lifecycle consists of four basic parts. Part one is called Init. Init is used to initialize the working directory that contains all the files used to define the environment's configuration. After you do init, you then move on to Plan which is used to create a plan to reach the desired state. In the plan stage you can do a dry run and get an output which will show you what resources are going to be created, changed, or destroyed. This is one of the most important stages as this is the last stage that gives you a chance to review everything before committing the changes to the environment.

Next comes the apply stage where you are committing the changes you reviewed in the plan stage to your environment. At this stage, your resources will be created, changed, or destroyed to match the state you have defined in your Terraform configuration files.

The final stage of the lifecycle would be Destroy, which is used to delete all Terraform managed resources when they are no longer needed. Once you run Destroy, everything that you created in the apply stage will be destroyed permanently.

**As an example, this is how WVNET deploys a basic compute instance on Oracle Cloud using Terraform:**

First, we would go to the location of our current infrastructure code and initialize a unique environment using the OCI provider. We would then go to the plan stage and review the changes Terraform would like to make to that environment and adjust as needed. Once all adjustments are made, we can then run with the apply stage and commit those changes to our infrastructure. This can all be rapidly done with a single line of code and used to deploy multiple systems across our environment. Terraform also has components that allow for remote execution on the newly deployed virtual servers that can automatically run commands to initialize and commit changes to the virtual server using our Puppet environment. Being able to do this ensures that we can deploy environments consistently and efficiently.

Terraform is just one part of our deployment automation at WVNET and it alone saves us large amounts of time which can be redirected back to work on other areas in need.



# Development Team Update

In October, Sarah Barnes and Lisa Bridges attended An Event Apart Denver. This three-day conference focused on digital design, UX, content, and code and is known for its high-level speakers and innovative insights into where web design is now and where it is heading.

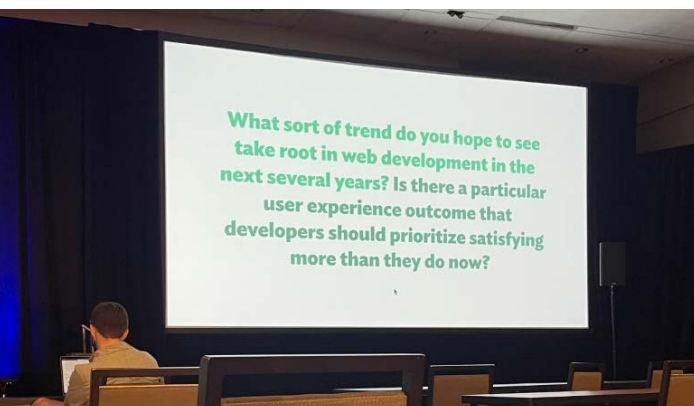
The subject matter included: Accessibility, new CSS features, scroll snapping, remote practices, grid reluctance, front-end development, design, responsive animation, web performance, over-coming career setbacks, SEO and UX, designing for safety, multilingual design and controlling the cascade.

They also attended a **After Hours: Shop Talk Show LIVE!** With Chris Coyier, Co-founder, CodePen and Dave Rupert, Paravel.

The event provided an opportunity to be a part of discussions focused on web design and development in a way that is not possible in a virtual environment.

“What we do as designers and developers is so specialized, it’s really refreshing to be among people who do exactly what we do and talking to them about coding and design,” said Sarah. “It’s sometimes very isolating but being a part of a conference like this can be very validating and help you feel more confident with what you’re doing.”

Lisa reported “One of the issues I have experienced in my career has been working by myself. I really loved being part of the audience and listening to presentations and validating the skills that I have developed over the past several years. Hearing the language of what was being presented was beneficial for me. The presenters made everything look so easy!”



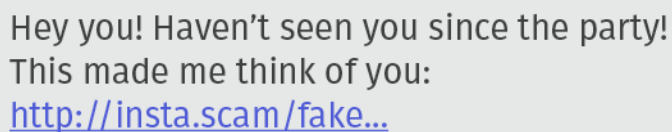
# 'TIS THE SEASON FOR SMISHING

## Edited from SANS Security Awareness Newsletter - November 2022

If you're like most everyone with a personal device, you've seen a significant uptick in the number of text messages, with too many not pertinent to your life. On occasion, these could be wrong numbers that we can chalk up to honest mistakes or "fat fingers." But more frequently, these represent an increasingly common type of attack referred to as smishing.

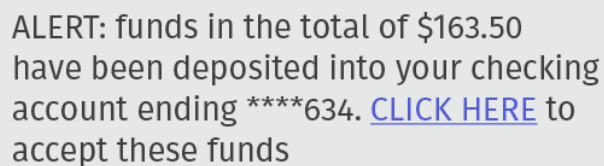
Smishing is a type of social engineering phishing attack using Short Message Service or SMS. Similar to phishing scams, smishing messages typically include a threat, enticement, and even curiosity to click a link or call a number, often with the goal of getting you to hand over sensitive information.

Smishing attacks can take many forms. Sometimes they leverage the "wrong number" trick to elicit a mistaken click:



Hey you! Haven't seen you since the party!  
This made me think of you:  
<http://insta.scam/fake...>

Or they pander to more basic instincts with the promise of cash rewards:



ALERT: funds in the total of \$163.50  
have been deposited into your checking  
account ending \*\*\*\*\*634. [CLICK HERE](#) to  
accept these funds

Help protect yourself and your personal information against SMS attacks with the following quick tips:

- If you do not recognize the text or call number, do not click the link.
- Resist responding to the text, even if the message requests that you "text STOP" to end messages.
- If a text is suspicious, just delete it.
- Ensure your devices are updated to the latest software version and turn on automatic updates if available.

# WVNET Finance Business Office Update

June through mid-October was a very busy time for WVNET's Finance-Business Office, as it required wrapping up the previous year's financial processes while performing the day-to-day operations of the current fiscal year, as well as submitting the budget for the next fiscal year.

## **In FY 22, WVNET implemented Statement No. 87 of the Government Accounting Standards Board (GASB). As defined by GASB:**

**The objective of Statement No. 87** of the Government Accounting Standards Board (GASB) is to better meet the information needs of financial statement users by improving accounting and financial reporting for leases by governments. This statement increases the usefulness of governments' financial statements by requiring recognition of certain lease assets and liabilities for leases that previously were classified as operating leases and recognized as inflows of resources or outflows of resources based on the payment provisions of the contract. It establishes a single model for lease accounting based on the foundational principle that leases are financings of the right to use an underlying asset. Under this Statement, a lessee is required to recognize a lease liability and an intangible right-to-use lease asset, and a lessor is required to recognize a lease receivable and a deferred inflow of resources, thereby enhancing the relevance and consistency of information about governments' leasing activities.

Throughout the year, day-to-day operations include negotiating and renewing contracts, paying vendors, closing out each end-of-month, managing payroll, and other responsibilities. During these especially hectic months, the Finance-Business staff responds to requests from the financial auditors for the prior year financial statements, updates a full-year expense projection into the current fiscal year, and submits the following fiscal year's budget to the State.

## **In FY 23, WVNET will be implementing GASB 96:**

**Statement No. 96** of the GASB provides guidance on the accounting and financial reporting for subscription-based information technology arrangements (SBITAs) for government end users (governments). This Statement (1) defines a SBITA; (2) establishes that a SBITA results in a right-to-use subscription asset—an intangible asset—and a corresponding subscription liability; (3) provides the capitalization criteria for outlays other than subscription payments, including implementation costs of a SBITA; and (4) requires note disclosures regarding a SBITA.



# ELECTION INFRASTRUCTURE SECURITY

From the office of:



**CYBERSECURITY  
& INFRASTRUCTURE  
SECURITY AGENCY**



Fair and free elections are a hallmark of American democracy. The American people's confidence in the value of their vote is principally reliant on the security and resilience of the infrastructure that makes the Nation's elections possible. Accordingly, an electoral process that is both secure and resilient is a vital national interest and one of the Cybersecurity and Infrastructure Security Agency's (CISA) highest priorities.

CISA is committed to working collaboratively with those on the front lines of elections—state and local governments, election officials, federal partners, and vendors—to manage risks to the Nation's election infrastructure. CISA will remain transparent and agile in its vigorous efforts to secure America's election infrastructure from new and evolving threats.

## **ANNOUNCEMENTS:**

October 18, 2022: CISA released the Tactics of Disinformation Series, available in English and Spanish, to provide state, local, tribal, and territorial government officials and private sector partners insight into eight common tactics used by disinformation actors to spread false narratives as well as proactive measures that can help mitigate the effectiveness of each tactic.

Download/share the **Tactics of Disinformation Series** (English-version)

Download/share the **Tactics of Disinformation Series** (Spanish-version)

October 12, 2022: CISA offers a new training, Non-Confrontational Techniques for Election Workers, to empower poll workers and election officials to safely navigate potentially escalating situations at election facilities and polling locations. Available in-person or virtually, this and other election trainings, are customizable and can be tailored to meet specific stakeholder needs.

View the 15-minute abbreviated version of the full training: [www.youtube.com/watch?v=rCWt7gDwEPc](https://www.youtube.com/watch?v=rCWt7gDwEPc)

For other election trainings, check out: Election Trainings and Exercises Offerings Flyer

To request the full training or any of the other election trainings, email [electionsecurity@cisa.dhs.gov](mailto:electionsecurity@cisa.dhs.gov) or contact your regional CISA office.

To read full article visit: <https://www.cisa.gov/election-security>

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