

WVNET Trivia

January 4, 2024

Have some fun with WVNET on National Trivia Day!



Important Network Updates by Upstream Provider 3ROX to take place December 19

January 4, 2024

****UPDATE****

3ROX has completed all maintenance as of 7:15 PM 12/20/2023. Network operations have now returned to their normal state.

Our Fall 2023 Newsletter

January 4, 2024



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WVNet Offices will be closed:

Thanksgiving, November 23-24, 2023

Christmas, December 25, 2023

New Years, January 1, 2024

WVSTC - TAKING A BREATHER IN 2024

In 2024, we're hitting the pause button on the West Virginia Statewide Technology Conference. But hold on, it's not a farewell; it's more like a "see you later." We're taking time to recharge, regroup, and we hope to come back in the future with a conference that's even better suited for our customers.

Your input and ideas are valuable, so don't hesitate to share them with us.

Keep in Touch

We may be on hiatus, but we're not disappearing. Stay connected with us through our email list and social media for updates and developments. We'll keep you in the loop as we prepare for the future.



UPDATE FROM THE EXECUTIVE DIRECTOR!

As we bid farewell to Cybersecurity Awareness Month, it is imperative to recognize that our commitment to cybersecurity should not conclude with the passing of October. Cyber threats are persistent and ever-evolving, and now, as the holiday

season approaches, our digital defenses must remain as vigilant as ever.

The holiday season is traditionally a time of joy and celebration, a time when we gather with family and friends to create lasting memories. However, it's also a time when cybercriminals become more active, preying on the increased online activity and distracted individuals.

Here are some key points to consider as we navigate the holiday cybersecurity landscape:

1. Be Cautious of Phishing Scams: During the holiday season, phishing scams tend to surge. Cybercriminals often disguise their malicious emails as enticing holiday offers, e-cards, or fake shipping notifications. It's vital to stay vigilant and double-check the legitimacy of every email you receive.

2. Secure Your Online Shopping: Online shopping becomes the norm during the holidays. Ensure you shop on reputable websites with secure payment methods. Look for the padlock icon in your browser's address bar and use strong, unique passwords for each site.

3. Safeguard Your Personal Information: Be mindful of the personal information you share online. With increased online interactions during the holidays, ensure that you are not oversharing sensitive data on social media or other platforms.

4. Update and Secure Your Devices: Cybersecurity is only as strong as its weakest link. Make sure all your devices, including computers, smartphones, and IoT devices, have the latest security updates and patches installed.

5. Use Strong, Unique Passwords: Passwords are your first line of defense. Utilize strong, unique passwords for every online account, and consider using a password manager to keep track of them securely.

6. Educate Your Family and Friends: Share your knowledge about cybersecurity with your loved ones. Ensure they are aware of the risks and practice safe online habits.

7. Monitor Your Financial Transactions: Regularly review your financial statements and report any suspicious activity immediately to your bank or credit

card company.

As the Executive Director of WVNET, I am proud of the work we do to enhance the cybersecurity posture of educational institutions and organizations throughout West Virginia. Our commitment to cybersecurity doesn't wane with the end of Cybersecurity Awareness Month; rather, it grows stronger, more vigilant, and more proactive.

In this digital age, maintaining our cybersecurity is not a choice; it is a responsibility. We must remain vigilant year-round, not just for the security of our institutions but for the protection of our individual privacy and safety. Cybersecurity is not a destination; it's a journey, one that requires continuous learning and adaptation.

By staying alert, informed, and cautious, we can celebrate the holidays with peace of mind, knowing that we are safeguarding our digital frontier.

WELCOME NEW EMPLOYEES!

Welcome Andrew Davis!



Andrew Davis is a recent graduate of West Virginia Junior College, with an Associate's degree in Information Technology. He joined WVNET in September as a Network Operator at WVNET and has demonstrated a sincere dedication in learning his new role. His passion for technology serves as both a career drive and a personal interest, with a mission to forge a successful IT career while providing for his family. Outside of work, Andrew finds joy in gaming, avidly following TV and movies, immersing himself in music, and passionately following 'One Piece.'



Your satisfaction is very important to us. WVNET has implemented a customer satisfaction survey link in our OZ ticketing system. When a help 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 and you wish to take the survey, please feel free to complete the survey at <https://wvnet.edu/satisfaction-survey/>. We look forward to hearing from you. Have questions? Contact Harmony Garletts at hgarletts@staff.wvnet.edu.

[Customer Satisfaction Survey](#)

NEW SCHEDULE OF RATES

Effective July 2023, WVNET has a new schedule of rates.

Visit <https://wvnet.edu/resources/schedule-of-rates/> to find out more.

DEPARTMENT UPDATES

CLIENT SERVICES

What is AI?

Artificial intelligence (AI) refers to computer systems that can perform tasks that typically require human intelligence, such as visual perception, speech recognition, and decision-making. AI systems are powered by algorithms that learn from data to improve at specific tasks over time without explicit programming.

AI is transforming industries from healthcare to transportation. However, the term is sometimes misused or exaggerated in popular culture, leading to misunderstandings about what today's AI can and cannot do. So what are some key things to keep in mind when thinking about AI?

What AI is:

- Algorithms that learn. AI systems use statistical techniques to “learn” from large amounts of data, allowing them to improve at tasks without traditional programming.
- Pattern recognition. AI can perceive and understand inputs like images, audio, and text to complete tasks like image classification, speech-to-text, and language translation.
- Predictive capabilities. AI can analyze current data to make predictions about potential future outcomes. This is used for things like predicting equipment failures or forecasting disease spread.

What AI is not:

- Sentient or conscious. Despite depictions in science fiction, real-world AI systems do not currently have human-like consciousness, emotions, or intent.
- Infallible. AI systems can and do make mistakes if their training data or algorithms have biases or gaps. AI consistently requires monitoring and auditing for errors.
- Magic. While impressive, AI capabilities have limitations and do not manifest intelligences from nowhere. AI is the product of human ingenuity, labor, and oversight.

Understanding what AI truly is – and is not – will be important as these technologies continue advancing and impacting our lives. By dispelling the myths around AI, we can have productive discussions about developing and regulating AI thoughtfully.

Welcome to the Future: There's an AI for That!

In this age of rapid technological advancement, Artificial Intelligence (AI) has permeated every aspect of our lives, transforming the way we work, learn, and interact. We would like to introduce you to an innovative platform that stands at the forefront of this revolution: “[There's an AI for That](#)”!

“[There's an AI for That](#)” is a one-stop solution, bringing together a diverse range of AI applications designed to cater to various needs and interests. No matter what you are looking for, this platform has something for everyone. This tool has some intriguing opportunities for use in the education field, including resources for both students and faculty to enhance their learning journeys. Some examples of interesting resources found here are Excel formulas, explanations, and macro builders.

Ready to embark on your AI journey? Visit “[There's an AI for That](#)” today to explore

the limitless possibilities of AI and discover how it can transform your world.

CLIENT SERVICES-BANNER

FAFSA Simplification

The FAFSA Simplification Act of 2020 made many changes to the way students apply, how the data is processed, and how schools handle the data received, beginning with the 2024-2025 FAFSA. The FUTURE Act (Fostering Undergraduate Talent by Unlocking Resources for Education) also enhanced the exchange of data between the IRS and the FAFSA Processing System (FPS) in order to streamline the application process for students. The following is a basic summary of information found in the *2024-25 Draft Student Aid Index (SAI) and Pell Grant Eligibility Guide* available at fsapartners.ed.gov.

The application has changed in that students, spouses, and both parents (all now known as “contributors”) will have separate FSA ID’s with which to log in and complete their portion of the FAFSA - necessary due to FUTURE Act requirements to authorize use of IRS data. The FUTURE Act also takes away the ability of a school to initiate the application FAFSA Partner Portal (was FAAAccess) due to needing authorization to match IRS data. Some questions have been removed, such as those pertaining to selective service and drug conviction. Demographic questions have been added and algorithms have been altered to better guide the family through the application.

The FAFSA collects data from the applicant and uses it to calculate their eligibility for federal financial aid programs. The FAFSA eligibility determination that was called an Expected Family Contribution (EFC) will be the Student Aid Index (SAI) beginning in 2024-2025. The Student Aid Report (SAR) the student receives is now the FAFSA Submission Summary. So far, the ISIR (Institutional Student Information Record) that the school receives from the processor is still an ISIR.

Determination of Pell Grant eligibility no longer directly applies the FAFSA result

(EFC/SAI) to a Pell Grant Award and Disbursement Schedule. The new formula uses family size and income, which is compared to percent of poverty level income in the dependent student's parent's state of legal residence or the independent student's state of legal residence. If the student is not eligible for Pell using this test, but they have an SAI that is between the minimum and maximum Pell amounts, they may still be eligible for an amount of Pell based on the difference between their SAI amount and the maximum Pell award amount. For example, let's assume the maximum Pell award for the aid year is \$7000 and the student's family income is greater than the maximum allowed for a Pell Grant based on a comparison to poverty level in their state. The student's SAI of \$500 would be subtracted from the maximum Pell award of \$7000 and a Pell Grant would be awarded for \$6500. A student attending less than full time will get a reduced amount based on enrollment as a percent of full time (92% of the full time award would be awarded for a student carrying 11 credit hours, for example).

All of these changes have delayed the availability of the 2024-2025 FAFSA to December 1, 2023 from the usual October 1. Another complication for schools is that Ellucian will not be able to provide the 2024-2025 ISIR dataload software until mid-December. Testing will need to wait until the software is available. In the meantime, schools will be required to submit Federal Work Study (FWS) earnings data via Common Origination and Disbursement (COD) system so that it's available when the student completes the FAFSA - students no longer need to enter the FWS amount onto the FAFSA. Ellucian delivered a process that will populate a new table with FWS earnings data and two new processes to extract the data for submission to COD and to import the acknowledgement back into Banner.

This isn't the first major overhaul of the financial aid delivery process and it will probably not be the last. Some years require extra training and others leave scars. Let's hope this one just involves some tweaks, a little extra training, and a few procedural changes.

SYSTEMS UPDATE

Introduction:

Nearly all essential business operations in the modern age hinges on the dependability and security of systems that operate behind the scenes, often imperceptible to the daily users. These systems are akin to a “blackbox” for most individuals. At WVNET, we boast a team of proficient system administrators, adept at leveraging modern techniques to bolster security, automate processes, implement updates, and meticulously monitor a multitude of critical systems that are crucial for the seamless functioning of organizations in West Virginia.

Automation:

WVNET’s system administrators employ a suite of automation tools that are widely recognized as industry benchmarks for proficient administrative teams. Manual execution of tasks such as server deployment and configuration not only introduce the possibility of minor discrepancies resulting from human error but is also more time-consuming and lacks a comprehensive overview of the system configurations from an abstract standpoint. The adoption of Infrastructure as Code tools enables our team to effect swift changes across all automated systems and serves as a documented record of these configurations. Terraform is the preferred tool for automating the deployment of virtual machines on our cloud-based hosting service, which plays host to web servers and other critical mediators for processing and transmitting data across the state. Puppet, on the other hand, is our favored choice for configuring and managing systems. The combined use of these tools centralizes deployment and configuration management in key locations, facilitating effortless system updates and security patching.

Monitoring System Health / Recovery Methods:

At WVNET, we deploy an array of tools to fortify data security and maintain a vigilant watch over the health and status of our systems. Central to our toolkit is Nagios, a versatile and widely adopted monitoring system that shoulders the responsibility of overseeing the majority of our servers. Nagios not only provides invaluable insights when errors occur but also promptly alerts us to instances of

dwindling system resources, generates comprehensive uptime reports, and issues a diverse spectrum of alerts. Its real-time capabilities grant us immediate visibility into the status of servers, applications, and network devices, empowering our team to proactively address issues by delivering timely alerts and notifications. Nagios is our steadfast solution, whether we're detecting server outages or closely monitoring resource utilization. Together with our Network Operations Center (NOC) staff, it serves as the cornerstone in upholding the dependability and stability of our server infrastructure at WVNET.

In conjunction with our robust monitoring efforts, we prioritize data security through the implementation of multiple backup techniques. These encompass file-level backups, which safeguard individual files, and daily disk snapshots with replication off-site. This multi-tiered approach ensures that critical data is protected, and system recovery remains reliable, fortifying our commitment to data integrity and system stability.

Internal Security and Threat Detection:

In addition to managing and automating our systems, WVNET places a strong emphasis on internal security to safeguard against potential threats. We employ a multi-faceted approach that includes the utilization of security assessment tools such as Nessus and OpenVAS. These tools are instrumental in scanning our network and systems for vulnerabilities, ensuring that we identify and address potential weaknesses before they can be exploited by malicious actors.

Nessus is renowned for its comprehensive vulnerability assessment capabilities. It scans our network infrastructure, servers, and applications to pinpoint potential security issues, assess their severity, and provide actionable recommendations for remediation. By regularly conducting Nessus scans, we bolster our proactive stance against vulnerabilities and ensure that our systems remain resilient against emerging threats.

OpenVAS, an open-source vulnerability assessment tool, complements our security strategy. It conducts in-depth scans to identify weaknesses in our systems and applications, providing us with detailed reports and risk scores. These insights allow us to prioritize remediation efforts and continually enhance our security posture.

To further strengthen our security and effectively manage the vast amount of security data generated by our systems, we've implemented the Wazuh Security Information and Event Management (SIEM) system. Wazuh is instrumental in real-time threat detection, incident response, and security monitoring. It aggregates and analyzes security events, identifies potential threats, and notifies our team of any suspicious activity. By centralizing and automating the analysis of security data, Wazuh helps us respond promptly to security incidents, minimizing potential damage and ensuring the integrity of our systems and data.

Incorporating Nessus, OpenVAS, and Wazuh SIEM into our security framework underscores our commitment to maintaining a robust and proactive internal security infrastructure. By continuously assessing and monitoring our systems for vulnerabilities and threats, we strive to provide our clients with the highest level of protection for their critical data and business operations.

Conclusion:

Preserving the security and accessibility of information with a high level of confidence is paramount to the operational success of our clients' businesses. Deprived of reliable access to our systems for their data, the cost could extend beyond mere financial implications, impacting their public image as well. Moreover, the assurance of data recovery through our backup systems in times of catastrophe instills confidence that not all is lost during dire situations.

TELECOM UPDATE

Welcome to the WVNET Telecom team Kyle Atkins!

Kyle joined the team after previously working in WVNET'S Network Operations Center (NOC). Kyle is originally from Madison, WV and now lives in Arthurdale, WV. He graduated from West Virginia Junior College with an Associate Degree in Network Administration and Security. Before West Virginia Network, Kyle worked for AT&T. He is married to Samantha, and they have three adopted daughters - Rhi,

Nevaeh, and Alexis, one son – Buster, and seven pets – three dogs (Jade, Dexter, and Kane), two cats (Jackson and Oscar), and two pot belly pigs (Dale and Julia).

Useful Cybersecurity Resources

Cybersecurity & Infrastructure Security Agency (CISA) works with partners to defend against today's threats and collaborate to build a more secure and resilient infrastructure for the future. CISA offers cybersecurity essentials for small and local government agencies.

Cyber Essentials:

<https://www.cisa.gov/resources-tools/resources/cyber-essentials>

Launched in 1989 as a cooperative for information security thought leadership, and now the world's largest cybersecurity research and training organization, SANS (SysAdmin, Audit, Network, Security) specializes in helping reduce organizational risk. Check out these helpful resources from SANS on password managers and online security for kids:

The power of Password Managers (everyone should use one)

<https://www.sans.org/newsletters/ouch/power-password-managers/>

Online security for kids

<https://www.sans.org/newsletters/ouch/online-security-kids-23/>

This summer hackers are believed to have targeted a wide range of organizations, including federal and state agencies as well as corporate entities by using flaws in popular file-transfer tool MOVEit. **These helpful links provide ways organizations can work to protect their identities after the breaches:**

How to protect your identity after MOVEit breaches:

<https://www.axios.com/2023/06/23/moveit-breaches-identity-theft-protection>

The Biggest Hack of 2023 Keeps Getting Bigger

<https://www.wired.com/story/moveit-breach-victims/>

Our Summer 2023 Newsletter

January 4, 2024

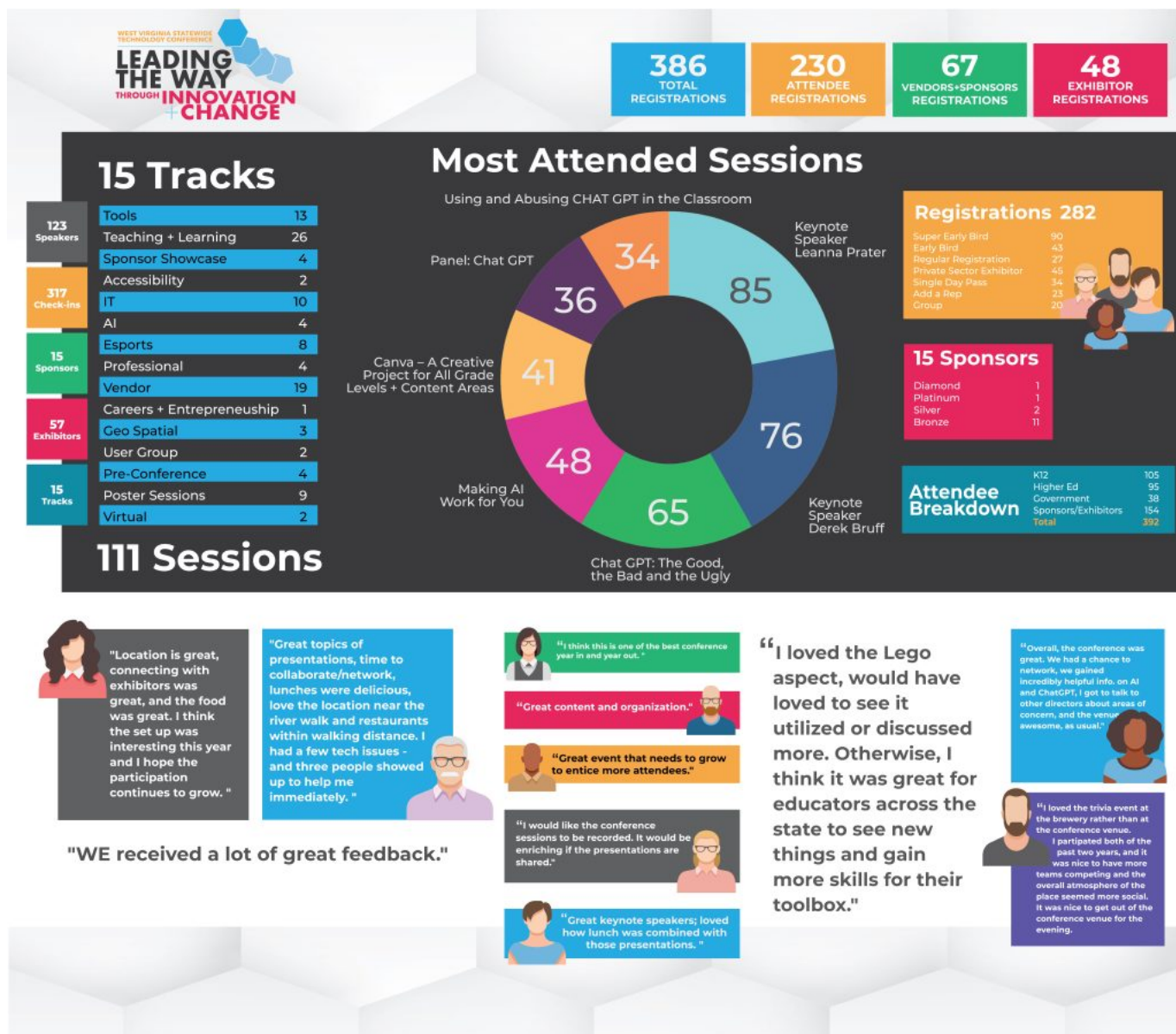


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WVSTC WRAP-UP AND THANK YOU

The West Virginia Statewide Technology Conference Committee would like to express our gratitude and appreciation to our sponsors, exhibitors, and attendees for making the event a resounding success.



With your help, we brought together technology enthusiasts, professionals, and educators from all corners of West Virginia to foster knowledge, collaboration, and the exploration of cutting-edge technological innovations.

Without your invaluable support and active participation, this event would not have been possible.

To our sponsors, we extend our sincerest thanks for your generous contributions. Your support helped us cover essential costs, enhance the conference experience, and provide attendees with valuable resources and networking opportunities. Your commitment to advancing technology in our state is commendable and has a lasting impact on our community.

To the exhibitors, thank you for showcasing your products, services, and solutions during the conference. Your presence added immense value to the event, and attendees benefited from hands-on experiences and insights into the latest developments in the tech industry. Your engagement and willingness to share knowledge have left a positive impression on all who attended.

To our attendees, we extend our thanks. Your active participation, thought-provoking discussions, and eagerness to learn contributed significantly to the conference's overall success. We hope that the knowledge gained and connections made during the event will inspire continued growth and development in the field of technology.



FROM THE EXECUTIVE DIRECTOR!

Steven White, WVNET Executive Director

I am delighted to announce my official appointment as the new Executive Director for WVNET, following an extensive search conducted by the Higher Education Policy Commission and the dedicated members of the search committee. I am deeply

honored to have been selected for this role, and I am committed to continuing my support on various initiatives across West Virginia.

I am also pleased to share that Jason Chastain has accepted the position of Manager of Telecommunications at WVNET. Given Jason's extensive history with WVNET, his leadership and expertise will undoubtedly play a pivotal role in guiding the telecommunications department to success.

These leadership changes followed a successful West Virginia Statewide Technology Conference (WVSTC), which was held on July 19-20th, and covered a wide range of pertinent topics. While the Artificial intelligence (AI)-related sessions garnered significant anticipation and attendance, numerous other sessions also provided valuable insights for supporting our institutions. I want to extend my gratitude to all the presenters and attendees who contributed to the conference's success as well as the Conference Planning Committee who poured a lot of hard work and dedication into making this year's WVSTC a wonderful educational and networking event for West Virginia.

Lastly, I want to emphasize the importance of maintaining a high level of security awareness. With the increasing frequency of cybersecurity attacks, it is crucial for us all to take proactive measures. Implementing multiple layers of security can greatly reduce the risk of such attacks, but it all starts with individual users. By adhering to best practices such as using unique passwords, being cautious of unsolicited emails, and embracing multi-factor authentication, we can collectively make a substantial difference in enhancing our security posture.

I look forward to working with all our customers more in the future and I hope everyone has a great remainder of the summer and a successful fall term.

WELCOME NEW EMPLOYEES!

Eduardo Del Toro joined the DBA Group as the new Oracle DBA Senior on July 5, 2023.

Eduardo is a Senior Oracle Database Administrator (DBA) with more than 15 years of experience working with many Fortune 500 companies in sectors like health care, manufacturing, education, county/state/federal government, agrochemical biotechnology, shipping/logistics, banking, telecommunications, utilities, Federal Reserve Bank, and the Department of Defense, to name a few. After graduating from the University of Puerto Rico Mayagüez campus with a Bachelor's degree in business administration, Eduardo started as a COBOL programmer, and then became Oracle DBA supporting the AT&T Universal Card product. He finds pleasure and excels in work environments that are open and collaborative. He also demonstrates strong communication skills, including the ability to create documentation and job aids. This is particularly valuable, as many business challenges arise from inadequate communication and a lack of information and procedural sharing.

PROMOTIONS

Steven White - Executive Director

Jason Chastain - Manager of Telecommunications

Kyle Atkins - Telecommunications Network Specialist I



government
technology

2023

>> West Virginia

Digital Government Summit

OCTOBER 17 / CHARLESTON



Visit <https://events.govtech.com/West-Virginia-Digital-Government-Summit.html> for more information.

SAVE THE DATE!

JOIN US FOR THE

WOMEN LINK CONFERENCE

"LEADING, INNOVATING, NETWORKING AND KNOWING"

November 2nd, 2023 | 9 am to 3 pm
Registration coming soon
Held at the Morgantown Marriott
at Waterfront Place

Sponsored by: NASA West Virginia Space Grant Consortiums
& The WVU teaching and learning commons





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[Customer Satisfaction Survey](#)

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JOIN OUR TEAM!

WVNET offers an excellent State of WV Employee benefits package of health insurance, dental, vision, hearing, Health Savings Accounts / Flexible Spending Accounts, retirement investing, life insurance plans, short-term/long-term disability insurance, as well as generous amounts of vacation, sick, state & federal holidays, and professional development opportunities. To view full job details, check our website: <https://wvnet.edu/about/careers/> and submit your resume to careers@staff.wvnet.edu. EOE/AA/ADA Employer

DATA CENTER MANAGER to maintain the smooth operation of our data center infrastructure and physical facility. Responsibilities will include ensuring the data center's optimal performance, leading technical staff, maintaining service availability, managing environmental controls, and overseeing facility maintenance and security. Salary range: \$75,000 - \$85,000.

NETWORK OPERATOR to provide basic (Tier I) assistance and consulting to WVNET customers, including K-12 schools, higher educational institutions, libraries, state and county government, and various not-for-profit organizations. Network Operators are categorized as essential personnel as defined by WVNET policy, and the incumbent is required to work during declared emergencies.

This position provides customer support, system monitoring, and problem escalation to advanced (Tier II) support on a 24-hour non-standard work hours basis. The position is required to work a 12.5-hour rotating shift to accommodate 24/7 services.

DEPARTMENT UPDATES

SYSTEMS UPDATE

Jobsub Update

WVNET has recently implemented important updates to the Jobsub web interface. These updates have two main objectives: enhancing security measures and improving the user experience for both individuals and school administrators. The primary focus is to provide better control over accounts and ensure the safety of personal information.

In response to the escalating frequency of malicious cyber-attacks on various systems, strengthening the security measures of our applications has become imperative. The National Institute of Standards and Technology (NIST) is a widely respected authority that establishes guidelines for password security. According to NIST recommendations, password changes are advised at least once a year, preferably every 180 days. In alignment with these guidelines, Jobsub account passwords will now expire 180 days after their creation. However, users will now have the convenience of easily resetting their passwords using the new 'Forgot Password' feature, which grants them increased control over their accounts.

To provide an additional layer of security, Jobsub will now require users to verify their email addresses before gaining full account access. This verification process empowers users to independently utilize account recovery options. In the event of password reset needs, the Help Desk will remain available for assistance.

Furthermore, the updated web interface enables accounts to directly view a broader range of file types without the need for downloading. Previously, users were required to download specific file types to verify their contents. However, now you can instantly access the contents of SQL files and numerous other types without the need to download them.

Considering the new requirement for users to verify their email addresses, we are

introducing mass email notifications for specific announcements sent to all registered email addresses. This initiative aims to minimize confusion following significant updates to Jobsub. These email notifications will inform users about upcoming major updates that might impact their login process in the future. Since these announcements are accessible only after logging into the interface, receiving email notifications about such updates is expected to provide valuable assistance.

TELECOMMUNICATIONS UPDATE

During the summer, the Telecommunications Group at WVNET has undertaken a few projects to ensure the reliability of the network used by its customers. One example of this is the deployment of a Cisco 8200 series router for the Wood County Courthouse. This device replaced the aging Cisco 3945 router, which had served as the core network router for the Courthouse since September 2012.

It's worth noting that the initial deployment of Cisco 3945 routers to all 55 County Courthouses was made possible through a BTOP (Broadband Technology Opportunities Program) Grant back in 2012.

As these routers are gradually phased out and replaced by the individual Courthouses, WVNET verifies that all information is cleared before sending them to surplus.

Responding to the growing demand for increased bandwidth in the southern half of West Virginia, WVNET took additional measures to enhance both Internet and Internet2 capacities at OARnet in Columbus, Ohio. An upgrade saw these capacities escalate from 30 to 40 Gbps. Notably, OARnet stands as one of the two upstream ISPs with which WVNET collaborates, ensuring resilient and redundant Internet/I2 connectivity.

The team has also started initiating a reconfiguration of parts of our network in preparation for the migration of the high-speed transit ring to Cisco NCS 5500 series routers. This advancement in technology will allow WVNET to incorporate

100Gbps WAVES, supplanting the current 10Gbps connections. Noteworthy is the fact that the existing transit ring was initially installed in 2012, underlining the transformative strides being made.

Highlighting their commitment to knowledge dissemination, the WVNET Telecommunications Group took center stage at this year's West Virginia Statewide Technology Conference. Their insightful presentation provided a comprehensive overview of the current state of our network architecture, along with insightful previews of impending upgrades. These include the high-speed transit ring migration, advancements in the VPN server, fortifications in firewall capabilities, and the pivotal upgrade of backbone routers.

DEVELOPMENT TEAM UPDATE

This issue, we're diving into the world of web typography. We all know how essential it is to make our content readable and visually appealing for our online audiences. To help you enhance the legibility of your content, we've gathered some insightful tips from Oliver Schöndorfer's article on font size, line height, and line length. Let's explore the key takeaways!

Font Size, Line Height, and Line Length: The Perfect Trio

When it comes to web typography, three crucial factors are closely intertwined: font size, line height, and line length. Remember these core principles:

- Font size and line height go hand in hand. They impact the overall readability of your content.
- Adjust line height according to line length. Longer lines require more line height, while shorter lines can do with less.
- Utilize a type scale to establish a typographic hierarchy, ensuring a visually pleasing layout.

- Optimal results are achieved by creating fluid line heights that adapt to column widths.
- For a consistent experience between desktop and mobile, a line-height value of 1.5 is recommended.

Crafting Effective Display Text

Display text, particularly headings, plays a pivotal role in catching your readers' attention. Here's how to make them stand out:

- For `<h1>` tags, the default choice is 40px/2.5em.
- On desktop, consider increasing font size to a maximum of 64px/4em.
- On mobile, opt for 32px/2em or smaller to avoid excessive space consumption.
- Experiment with smaller line heights, like 1.1, for larger headings.
- Sometimes, a line height smaller than the type size can enhance readability.

Mastering Body Text

The body text is where your content truly comes to life. Follow these recommendations for optimal results:

- Default choice: 16px/1em (browser's default).
- On desktop, increase font size up to 24px/1.5em at most.
- On mobile, stick to the defaults or occasionally go 10% smaller (min 14-15px).
- Aim for 50-75 characters per line (25-37.5rem) with a line height of 1.5-1.6 on desktop.
- Mobile-friendly text usually features 40-50 characters per line (20-25rem) and a line height of 1.3-1.45.

Fine-tuning Functional Text

Even functional text, such as captions and navigation elements, requires careful attention:

- Default choice: 12px/0.75em – 14px/0.875em.
- Feel free to increase font size up to 16px/1em on desktop.
- Be cautious not to make text too small on mobile, as it's already compact.

Harmonizing Typeface Attributes

Typeface attributes – font size, line length, and line height – interact harmoniously to create readable and engaging content. Start by selecting suitable typefaces and establishing a type scale for different text elements.

Achieving Fluid Typography with CSS Clamp()

Modern web design enables fluid typography using CSS clamp(). This technique interpolates between minimum and maximum values for font size and line height, adapting to container width and line length. While there's no magic number for perfect typography, the guidelines mentioned above, along with the tools available, will undoubtedly steer you in the right direction.

Remember, when in doubt, err on the side of larger font sizes. After all, readability is key to a successful online presence.

For further insights, we recommend reading Oliver Schöndorfer's comprehensive article [“What's The Right Font Size For the Web?”](#). Happy reading and happy typography tweaking!

To discuss web development projects or if you are looking for support for your current website, send an email to wvnet-support@staff.wvnet.edu to schedule a meeting and review your project requirements.

WVNET FINANCE UPDATE

The FY 23 audit has a new GASB requirement:

GASB 96 - "*Subscription-Based Information Technology Arrangements*" ("GASB 96")

In May 2020, the Governmental Accounting Standards Board (GASB) issued GASB 96 - *Subscription-Based Information Technology Arrangements* with the objective of enhancing transparency through the recognition of SBITA-related assets and liabilities on the balance sheet. The requirements of GASB 96 were effective for reporting periods beginning after June 15, 2022 (for many governmental organizations with a June 30th fiscal year-end, the adoption date would have been July 1, 2022, for the year ending June 30, 2023). GASB 96 requires a "full retrospective" adoption in which the standard is applied to all the periods presented in accordance with the guidance with the impact of adoption reported as a restatement of the beginning net position (or fund balance or fund net position, as applicable) for the earliest period restated. Accordingly, West Virginia Network for Educational Telecomputing ("WVNET") is adopting GASB 96 effective July 1, 2022, for the year ending June 30, 2023. As a result of the adoption of the new standard, WVNET is recording the impact as of the July 1, 2021, adoption date.

Please contact the Finance and Business Office staff with any questions you may have:

- Accounts Receivable - Libby Cress (lcress@staff.wvnet.edu or 304-293-5192 x 50451)
- Accounts Payable - Buffy Vehse (evsehse@staff.wvnet.edu or 304-293-5192 x 50487)
- Billing and Procurement - Phil Snitz (psnitz@staff.wvnet.edu or 304-293-5192 x 50483)
- CFO - Donna Meadowcroft (dmeadowcroft@staff.wvnet.edu or 304-293-5192)

x 50472)

Our Spring 2023 Newsletter

January 4, 2024

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West Virginia Statewide Technology Conference Update

We have been busy planning and this year's West Virginia Statewide Technology Conference which promises to be incredibly engaging and informative.

This year's event will feature keynote speakers Dr. Leanna Prater and Derek Bruff, interactive panel discussions, and over 100 concurrent sessions that will offer practical insights and real-world examples of successful technology implementation.

We are also offering add-on pre-conference sessions on WVEIS (free for K-12 educators), Office 365, Brightspace, and Degree Works. K-12 educators will also have an opportunity to earn CEU's (continuing education unit) from Marshall and WVU for an additional fee.

We will be hosting an Exhibitor Reception in the Expo Hall with refreshments Wednesday from 4-6 pm and each evening we'll continue the fun with breakout social events in town and near the conference center: **Team Trivia**, Wednesday at the Morgantown Brewing Company, **eSports Exhibition**, Thursday at conference

center, or meet up and play board games or just socialize at the Rooftop Bar.

Panel Discussions

We are featuring panel discussions on The Future of Technology in Higher Ed, ChatGPT and AI, and Esports. Panel sessions are a great way to learn from the experts in the field, as well as to network and engage with other professionals on the topics we are all talking about.

Concurrent Sessions

Our concurrent sessions include topics for K-12 Educators, Higher Ed, and general technology throughout the state of West Virginia. Attendees can expect to come away with a deeper understanding of the latest trends and innovations in educational technology. For a complete list of sessions, visit the conference website at <https://wvstc.com>.

Conference Mobile App

With over 100 sessions, we know it will be difficult to choose what to attend. This year we are offering a handy mobile app that will allow you to plan your conference experience and connect with other attendees and exhibitors. If you have already registered, be on the lookout for an email invite to log in and install the app on your device.

Register Early and Save

[Registration for the conference is underway.](#) We encourage you to sign up as soon as possible to take advantage of early bird and group registration rates. Act soon, as these rates end May 31. [For more information about the conference, including the program schedule and registration details, please visit the website or contact us.](#)



From the Interim Director!

Steven White, WVNET Interim Director

A Time for Change

The start of 2023 has brought about some a big changes at WVNET. Dr. Carl Powell has left his position as WVNET's Director and taken a new position to be able to move closer to his family.

Dr. Powell joined us in October 2019 and during his time with us, he oversaw several significant initiatives, such as overseeing the transition to a new Learning Management system and migrating to the Oracle Cloud environment

Dr. Powell will be missed but we wish him the best of luck in his endeavors. While a search for a new Executive Director is underway, I have been named Interim Director. Thanks to the support and knowledge of the dedicated staff, WVNET has continued to operate with very minimal disruptions in daily operations. With their support, I hope to continue the work that Dr. Powell had previously contributed and expand upon it.

I understand change can be difficult, but I'm also delighted to introduce our newest

team members, Brad Benkart and Zach Carpenter, who bring fresh perspectives and skills to WVNET. Our current staff is also flourishing, with many achieving impressive milestones during their tenure with WVNET and the State of West Virginia. Don't miss the SERVICE MILESTONES section in this newsletter to learn more about their accomplishments. If you're interested in joining our dynamic team, please check out the JOIN OUR TEAM! section for the latest career opportunities at WVNET.

I would also like to remind everyone that after the excellent turnout last year, we are once again hosting the West Virginia Statewide Technology conference from July 19-21st at the Morgantown Marriott. Registration is open and I would encourage you to sign up to ensure we have another successful chance to collaborate and learn together. More information can be found in this newsletter, or you can [go to wvstc.com](http://wvstc.com) to register.

WELCOME NEW EMPLOYEES!

Brad Benkart joined the Network Operations Center as a new Network Operator on March 27, 2023.

William “Zach” Carpenter joined the Systems Administrator Group as the new Information Systems Specialist on April 10, 2023.

William grew up in Marion County and after high school he moved to Morgantown and attended WVU to pursue a Bachelor's degree in Computer Science. He was a member of the Game Developers Club and an Undergraduate Researcher at WVU. William was also a Development Support Intern at Nextgen Federal Systems near the end of his time at WVU. He focused on working towards various certifications after graduating with his BSCS and also dabbled on software pet projects. When he isn't focusing on technology, his interests include graphic design, golf, bowling, hiking, fishing, and reading. William is excited about getting to know the team at WVNET and is keen on the opportunities to come.



Your satisfaction is very important to us. WVNET has implemented a customer satisfaction survey link in our OZ ticketing system. When a help 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 and you wish to take the survey, please feel free to complete the survey at <https://wvnet.edu/satisfaction-survey/>. We look forward to hearing from you. Have questions? Contact Harmony Garletts at hgarletts@staff.wvnet.edu.

[Customer Satisfaction Survey](#)

New Schedule of Rates

Effective July 2023, WVNET has a new schedule of rates.

Visit <https://wvnet.edu/resources/schedule-of-rates/> to find out more.

JOIN OUR TEAM!

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

WVNET offers excellent State of WV Employee benefits package of: health insurance, dental, vision, hearing, Health Savings Accounts / Flexible Spending Accounts, retirement investing, and life insurance plans, short-term/long-term disability insurance, as well as, generous amounts of vacation, sick, state & federal holidays, and professional development opportunities.

To view full job details, check our website: <https://wvnet.edu/about/careers/> and submit resume to careers@staff.wvnet.edu. EOE/AA/ADA Employer.

ORACLE DATABASE ADMINISTRATOR - SENIOR to assist State Higher Education institutions in working with AIX, Linux, and Oracle Cloud as the primary database administrator supporting critical applications such as Ellucian's Banner, Degreeworks, and other third-party applications. Salary \$70K - \$80K.

TELECOM NETWORK SPECIALIST 3 to troubleshoot/design LAN, WAN, Campus networks, wireless infrastructure, VOIP solutions, and ongoing maintenance/updating of hardware and software, etc. Salary \$70K - \$80K.

SERVICE MILESTONES

State of West Virginia Public Service Recognition Week (May 7-13, 2023)

Since 1985, the United States has designated the first full week of May as Public Service Recognition Week (PSRW) to honor the men and women who serve our nation as federal, state, county, and local government employees.

The State of West Virginia Public Service Recognition Week is a time to honor and thank WV public employees for their service, beginning with 20 years of service (and

proceeding in increments of five years). For 2023, WVNET will have 2 employees reaching their years of service milestones for the State of West Virginia:

35

Dianne Sisler 35 years of State of WV Service

Dianne Sisler is a hardworking and dedicated employee. She is a pleasure to work with and always has a pleasant disposition. She is extremely knowledgeable and is always available when she is needed. Dianne often works with WVNET customers to share her financial aid insight and even shares her time by assisting schools with management of their financial aid departments when they are short-handed.

30

Libby Cress 30 years of State of WV Service

Libby Cress is a dedicated and hardworking professional who has spent most of her career at WVNET. She started her journey in 1999 after gaining valuable experience in Travel and Asset Management at WVU. Since then, she has been an integral part of the WVNET team, serving in various roles such as purchasing, customer service, and accounts receivable. Libby is a people person, and she loves working with customers from all over the state. Libby has also contributed to the healthcare sector by working as a Nurse's Aide on Pediatrics and Orthopedics at WVU Hospital. Apart from her professional achievements, Libby is a proud grandmother to four beautiful granddaughters and two wonderful grand dogs. She is also blessed with a loving family, including her daughter, son-in-law, and supportive husband of 50 years. She is grateful for all the opportunities and experiences that have come her way and considers herself blessed. Outside of work, Libby enjoys spending time with her church and bowling group.

Milestones

YEARS OF SERVICE

Additionally we are celebrating our wonderful employees' service milestones (5 Years +) at WVNET



25

Dianne Sisler
Banner Team Lead

10

Russell McCormack
Software Developer/DBA

Mike McDonald
Systems Administrator Supervisor

Cory Morrison
Distance Learning

GUI Specialist

A large orange square containing the number 5 in a bold, dark grey font.

Chevee Dodd

Project Manager for IT and Application Development

Harmony Garletts

Manager of Client Services

Nathan Justice

Telecommunications Network Specialist II

Suma Ponnamm

Information Specialist

Zackery Smith

LMS Assistant Administrator

DEPARTMENT UPDATES

CLIENT SERVICES UPDATE

Brightspace APIs and Extensibility

WVNET's Distance Learning team is always working to improve the user experience in Brightspace. Currently, the team is training to learn how to use Application Programming Interfaces (APIs) within Brightspace to improve reporting practices and external tool setup. Once the team completes the training session, they will be

able to utilize these new skills in future projects and provide new custom development for all our customers.

TELECOM UPDATE

On March 8, WVNET added increased Internet bandwidth through OARnet, which mainly serves customers in the South. WVNET is always monitoring bandwidth utilization around the state in effort to have enough available where it is needed the most.

WVNET also recently updated our SolarWinds installation to the latest stable release. SolarWinds helps WVNET proactively respond to network issues, view historical data, and maintains a backup of customer equipment configuration files.

After expanding Eastern Community and Technical College's (Eastern CTC) wireless network pool, WVNET's Telecom Team is researching specifications for new Wireless Access Points for Eastern CTC. WVNET uses the ExtremeIQ Cloud to control, monitor, and update wireless devices. If you are interested in doing the same at your organization, please feel free to contact us for more information.

A new vendor has been chosen to assist with engineering WVNET's new high speed Transit Ring network. This work is tentatively scheduled to start in late June or early July. Once the new routers are installed, we will be able to support; up to 100Gbps links, an exciting upgrade from the current maximum per line capacity of 10Gbps.

DEVELOPMENT TEAM UPDATE

Accessibility Tips

Making your website or web application accessible to all users is not only important for ethical and legal reasons, but it also benefits your organization by making your site easier to use. However, ensuring accessibility can be a daunting task, especially if you're not familiar with the guidelines and best practices. Here are some tips to get you started:

- **Use meaningful and descriptive text for links and buttons.** Instead of using generic labels like “click here” or “read more,” use text that accurately describes the destination or action, such as “view the meeting agenda” or “learn more about our program.”
- **Provide alternative text descriptions for images.** This allows users who use screen readers or have visual impairments to understand the content of the images. Make sure your descriptions are accurate and descriptive.
- **Use color contrast to make text and images easy to read.** Ensure there is enough contrast between the text and background color so that it is readable for users with visual impairments or color blindness. Tools like WebAIM’s Contrast Checker can help you determine if your color combinations are accessible.
- **Make sure your website is navigable by keyboard.** This is essential for users who can’t use a mouse or other pointing device. Use the tab key to navigate through links and buttons, and make sure that the focus indicator is visible.
- **Provide captions and transcripts for audio and video content.** This is especially important for users who are deaf or hard of hearing. Ensure your captions are accurate and synchronized with the audio, and provide transcripts for users who may prefer to read the content instead.
- **Ensure your website is compatible with assistive technologies.** This includes screen readers, speech recognition software, and other tools that help users with disabilities navigate and access content. Test your website with different assistive technologies to ensure compatibility.

To discuss web development projects or if you are looking for support for your current website, send an email to wvnet-support@staff.wvnet.edu to schedule a meeting and review your project requirements.

WVNET FINANCE UPDATE

WVNET is working with CliftonLarsonAllen’s Government Accounting Standards Board (GASB) 96 team and will relay information to WVNET’s Higher Ed and/or Community and Technical College customers as it pertains to them: GASB 96, it is

effective for fiscal years beginning after 6/15/22.

Statement No. 96 of the Government Accounting Standards Board 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.

SYSTEMS UPDATE

Ransomware Threats are on the Rise

Ransomware attacks are up significantly in the first quarter of 2023, up 91% in March alone. With this in mind, everyone is highly encouraged to have this threat on the top of their list of things to be proactive and prepared for. A few WVNET customers are installing next generation firewalls on the edge of their network, which will provide them better visibility and threat detection on their networks. Please contact WVNET if you're interested in more information on the devices our customers have installed.

The following are some basic recommendations on how you can help prevent ransomware at your organization:

- **Regularly backup important data.** One of the best defenses against a ransomware attack is to ensure that important data is regularly backed up. This way, even if the attackers manage to encrypt or delete the data, it can be restored from the backup.
- **Install and update anti-virus software.** Make sure that anti-virus software is installed and kept up to date on all devices in your network. This can help detect and prevent malware infections that can lead to ransomware attacks.

- **Use strong passwords.** Ensure that all users have strong, unique passwords and consider using multi-factor authentication to add an extra layer of security.
- **Implement network segmentation.** Network segmentation can help limit the impact of a ransomware attack by containing it to a smaller portion of the network.
- **Conduct regular security awareness training.** Regular security awareness training can help employees recognize phishing emails and other social engineering tactics that are commonly used in ransomware attacks.
- **Use simulated phishing attacks.** Tools like KnowBe4 can help organizations simulate phishing attacks and test their employees' responses. This can help identify vulnerabilities and improve security awareness training.

Remember, no single solution can completely protect against ransomware attacks, so it's important to use a combination of different defenses to minimize the risk of an attack.

Cybersecurity and Infrastructure Security Agency (CISA) - Ransomware Guide

On September 30, 2020, a joint Ransomware Guide was released, which is a customer centered, one-stop resource with best practices and ways to prevent, protect and/or respond to a ransomware attack. CISA and Multi-State Information Sharing and Analysis Center (MS-ISAC) are distributing this guide to inform and enhance network defense and reduce exposure to a ransomware attack. The guide can be found at the link provided below along with other resources that can be found on the site.

<https://www.cisa.gov/stopransomware/ransomware-guide>

Connectivity Update - Issue has been resolved.

January 4, 2024



As of 4pm, the issue has been resolved. Work will continue but should not create latency nor outages. We will be monitoring the situation in the South and working with WVOT and K12 to confirm the issue doesn't return.