

New River Community and Technical College

Information Technology Services Plan

(2025-2030)

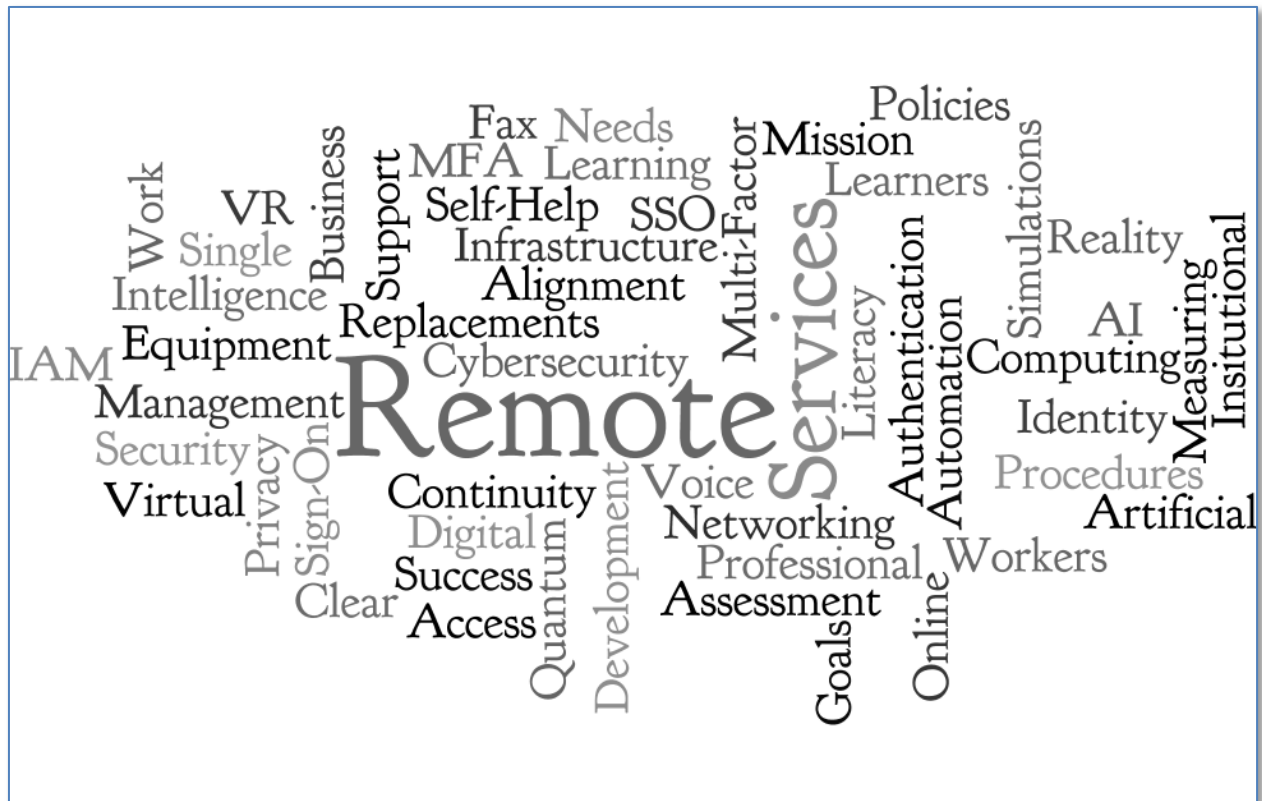


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I. Executive Summary

This plan provides an in-depth view of Information Technology Services at New River Community and Technical College. It provides (1) some historical background, (2) a description of current services, and (3) a look ahead into the next five years to address anticipated near-future opportunities and challenges.

Information technology services are increasingly critical in higher education because security and privacy are becoming hot topics impacting all higher education users. Rapid developments in artificial intelligence and the increasing reliance on remote work/learning also elevate information technology's importance.

These sudden changes and evolving focus areas require the periodic reevaluation of user needs to identify the most effective approach for delivering New River's services and resources.

Planning to effectively use technology services to best support the college's academic mission helps to (1) prioritize resources, (2) align various functional areas, and (3) enable the institution to fulfill its mission.

This **Information Technology Services Plan** has deliberately been developed to align with the College's overall strategic planning and budgeting process and, specifically, with other key College plans. While this Technology Plan can forecast changes with some confidence over the next few years, it attempts to look further by spanning five years. This time frame aligns it with other key College plans.

This plan provides a brief overview of technology services to date to provide some background for the college's current technology services landscape. This plan also looks five years ahead to address anticipated areas of challenge and opportunity. Unforeseen challenges will almost certainly arise in the next five years. This plan attempts to anticipate and mitigate these developments, but it also recognizes that some challenges will likely need to be addressed without advanced notice.

This plan can be found online with the following URL:

<https://web.newriver.edu/procedures/Technology-Services-Plan.pdf>

II. Institutional Alignment and Context

To explain how this plan aligns with other College initiatives and to establish a context for understanding present and future challenges and opportunities, this plan is intended to:

1. Establish **clear goals** and a realistic strategy for using technology services, digital communications, and emerging technologies to improve learning, facilitate communication, and support all College services.
2. Include a **professional development strategy** to ensure that department employees maintain expertise in the areas relevant to their responsibilities. However, incorporate the broader audience of all employees and students so that they also know how to use these new technologies and services.
3. Include a **needs assessment** of telecommunication services, hardware, software, and other service areas to determine where additional investments are warranted while also understanding areas where support can be reduced or withdrawn.
4. Incorporate a **sufficient budget** to acquire and maintain the hardware, software, professional development, and other services that will be needed.

5. We should include an **evaluation process** that enables us to monitor progress toward the specified goals and make mid-course adjustments in response to new developments and opportunities as they arise.

1. Clear Goals

Annual departmental goals are created and submitted to the President. These goals are specifically aligned with the Strategic Master Plan. Current and prior-year goals are in **Appendix A** and the link below.

<https://web.newriver.edu/aboutus/mission.html>

Even though it was completed in **2015**, we are still guided by the **Ellucian Action Plan**. We review and incorporate those recommendations as we update departmental goals. The Ellucian Action Plan was provided to us by a visiting team from Ellucian (at the President's request), and a copy is available online:

<https://web.newriver.edu/projects/ellucian/index.html>

While compliance requirements with auditors don't define our plans, they serve as an effective guide. We routinely respond to audit requests related to security, privacy, and accountability.

2. Professional Development Opportunities and Resources

Professional development can be used to quickly retool employees as environmental variables change. However, formalized training is not always the most expedient or efficient option. Each new technology, and often even the upgrades to existing technologies, requires investments of time and energy to acquire the skills and expertise to manage them. Professional development in IT is particularly important because of the rapid advances that occur with technology. In fact, it is difficult to imagine which technologies will be common in higher education five years into the future. So, rather than sending a few individuals to costly off-site training sessions, we've instead chosen to invest in online training resources that benefit not just our department specifically, but by making these resources available to all employees, we facilitate professional development throughout the College. We also rely on our vendors and higher education partners (WVNET) to provide us with training opportunities in some highly technical areas.

In **2024**, the College terminated the annual license for professional development with LinkedIn Learning. While the cost savings are certainly a positive result of that decision, finding alternative resources for professional development has been challenging. Once found, adopting these resources is expected to require additional effort and time, particularly among non-IT employees.

The freely available and paid subscriptions currently accessible to the college as resources for online training and professional development include:

- a. **Ellucian Academy** is a web-based service designed specifically for administrative end-users (and those individuals providing functional support) of Ellucian products. Self-paced and highly interactive, each course within this comprehensive learning system provides instructional content and allows learners to get hands-on practice completing key processes and tasks. Assessments are also included for every course.

<https://training.ellucian.com>

- b. **EDUCAUSE** is an online, cloud-based professional development resource.

<https://www.educause.edu/>

- c. **Khan Academy** is an online, cloud-based professional development resource for educators and students.

<https://www.khanacademy.org/>

- d. **Magna Commons** is an online, cloud-based professional development resource for faculty and administrators. It offers training for instructors and administrators in various areas.

<http://www.magnapubs.com/>

- e. **OLC (Online Learning Consortium)** is a non-profit group providing professional development resources and information for online educators through free webinars, peer networking, and access to research.

<https://onlinelearningconsortium.org/>

- f. **QM (Quality Matters)** is a non-profit organization providing online and web conferencing professional development opportunities to a diverse audience, including instructional designers, faculty, administrators, and adjunct instructors.

<https://www.qualitymatters.org/>

- g. **HELLO (Higher Education Leadership Learning Online)** is an online community that provides cloud-based professional development resources focused on distance learning and community.

<https://hellocommunity.net/>

3. Needs Assessment and User Feedback

Equipment has a lifecycle, and we try to plan for replacements within the overall priorities for service delivery. When equipment critical to operations fails unexpectedly, we routinely replace or repair it. We obtain feedback regarding the need for technology services through many avenues. Our own professional opinions factor into these decisions for replacements and repairs, but so too do the opinions of our users and the feedback we receive through participation in college committees and initiatives. Our trouble ticket survey follow-ups and other solicited input are also informative. As a result of this information, we foresee increasing needs in the following areas for the **2025-2030** timeframe:

1. Our New River CTC voice, video, and data **network infrastructure** was initially planned and installed in **2007**. Since then, we have added additional locations and replaced some key components as they failed, but nearly all this network infrastructure has now reached end-of-life. A comprehensive network infrastructure upgrade is planned for **2025** using a \$250,000 grant award from Alpha Innovations. This upgrade will not include our wireless network, as it was recently replaced. Despite some initial instability, the Wi-Fi 6 wireless infrastructure is expected to meet current needs until **2028**, when Wi-Fi 8 will become available.
2. Our core **IVN system** with 18 endpoints was created over a two-year period (using a Title III grant), beginning in **2008** and finishing in **2010**. In **2018**, we migrated to Zoom as a management solution for the IVN infrastructure. From **2019** to **2023**, we expanded the IVN infrastructure to 42 locations and replaced outdated equipment. As enrollment continues to be defined by student preferences for learning, many of these 42 rooms are receiving less

usage. We are exploring options and current trends in distance education to personalize learning and change our mindset for delivering video-based distance education. This exploration will consider individual mobile devices, computers, and personal off-site locations rather than simply sustaining our 42 dedicated IVN classrooms.

3. **Windows 10** will reach end-of-life on **October 14, 2025**. As a result, we must replace all Windows 10 computers that can't be upgraded to Windows 11 before then. The **MacOS** platform requires hardware newer than **2018** to run their current Sequoia OS. Annual operating funds will be requested to replace our oldest computer equipment routinely.
4. **Computer replacement** decisions are generally guided by an eight-year replacement cycle. This is only possible if newly purchased computers are robust enough and if users don't lose or damage the computers issued to them. In **2025**, the college supported 13 physical locations where computers were deployed (see Table 1). While enrollment has declined from over 3,000 students per term to fewer than 1,000, the number of physical locations has increased. Planning is needed to efficiently align enrollment with the number of supported physical locations. It is an ongoing effort to deploy technology and computing resources where they are most needed with the funding available.
5. The overall process used for **onboarding and offboarding** employees can be improved to provide more consistency, value, timeliness, and better overall service. Extensive effort is required to maintain accounts, privileges, and equipment accountability, and these procedures must become more efficient. Otherwise, more personnel will be required to manage this responsibility.
6. In collaboration with faculty and other staff, the new student and new employee **orientation** process and information are being updated to address current technologies and procedures. These new delivery approaches must be assessed to determine their effectiveness and to guide further improvements.
7. Completing the OLC [Online Student Support scorecard](#) periodically will enable the college to manage online support services effectively in a rapidly evolving learning environment.

4. Equipment Replacement Cycles, Budget, and External Funding

Most of the IT operating budget is encumbered from the beginning of the budget cycle as it goes to vendors for scheduled and contracted services (primarily WVNET and Alpha Innovations). We rely heavily on these two software-based service providers, but all IT service providers frequently increase their costs.

As mentioned, we plan for routine computer hardware replacements using an eight-year cycle as a general guide. Expansions to our physical infrastructure through new services and locations add additional budget demands for IT. Other hardware replacement demands that must be anticipated involve our network infrastructure, phones, and classroom technologies.

We've successfully supplemented our operational budget for software and hardware costs with grant funding, but additional funding would be helpful. Between **2008** and **2013**, we were awarded a \$2,000,000 Title III grant that greatly improved our IVN infrastructure and other distance education services. Since then, we've been fortunate to have several grant funding sources to make additional significant improvements. The most recent grant award was \$250,000 for networking infrastructure equipment from Alpha Innovations to be deployed in **2025**.

A continuing effort is needed to obtain outside revenue that funds new technologies as we explore their opportunities for enhancing college services and procedures. We continuously review expenses to identify areas where costs might be reduced. We also continuously evaluate the services we provide so we can improve upon them or choose when it is more cost-effective to outsource them.

We must proactively ensure that future grant planning involves IT representation during the planning process to ensure that IT equipment and service requests are sustainable and incorporated into the broader college-wide vision. To ensure this, the IT vice president must approve all technology, software, and cloud services.

5. Measuring our Success for Achieving Goals

We rely on data from various sources to evaluate our progress toward achieving our goals. As new annual goals are created and submitted to the President, prior-year goals are reviewed and updated regarding the progress made (see **Appendix A**).

HESK is our Help Desk ticketing system and self-help knowledge base. Our IT staff developed this solution, which is managed internally without any cost for the software. We document employee ticket activity each month and use it as part of a friendly competition within our department and to supplement overall reporting.

We created a second instance of HESK for the Maintenance staff in 2024, but as of early 2025, no feedback regarding its use has been provided.

III. Background and Description of Services

1. Defining Information Technology Services

Primary areas where technology is applied at New River include (1) teaching and learning, (2) communication, (3) data repositories, and (4) office administration. New River's IT support will continue improving each area over the next five years.

With limited resources and staffing, New River has selectively chosen the services to host internally and the other services to contract out to vendors (the Cloud) to achieve maximum efficiency while fully meeting all service requirements. These technologies comprise hardware (infrastructure) and software (applications and contracted services).

2. Mission (Support of the Strategic Plan)

The IT mission is guided by current Institutional Priorities, which aim to provide accessible, affordable, quality education and workforce training by:

College Priorities	IT Support Mission
<i>Empowering all students and employees to succeed.</i>	<p>Assist instructors in providing accessible, affordable, quality education by creating and maintaining a state-of-the-art technology infrastructure for data, voice, and video while also providing the essential hosted services needed to fully explore innovative remote and face-to-face education delivery methods.</p> <p>Deliver the relevant support services that empower users to communicate, find information, and complete tasks throughout their path to success—regardless of time or location.</p>
<i>Enhancing organizational effectiveness and accountability.</i>	<p>Assist instructors in providing accessible, affordable, quality education by creating and maintaining a state-of-the-art technology infrastructure for data, voice, and video while also providing the essential hosted services needed to fully explore innovative remote and face-to-face education delivery methods.</p>

<i>Engaging in community and economic development.</i>	<p>Promote opportunities that lead to digital literacy for all users while providing responsive and effective technical support to the New River educational community.</p> <p>Provide essential hands-on experience for entry-level workers to gain critical experience that advances their skillsets.</p>
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All IT staff members complete projects and initiatives that support these three priorities (see **Appendix A**).

3. Infrastructure

New River has made tremendous progress in building and maintaining a changing multi-site network to support the online services and resources required of a top-ranked two-year academic program.

As part of separating services from Bluefield State College in **2009**, the New River network was created in **August 2009**, and a Cisco Voice over IP (VoIP) phone system was completed in **January 2010**. Both systems were state-of-the-art technologies when installed and highly scalable to meet the college's current and near-future needs.

In **June 2011**, a new virtualized data center was created on New River's Beckley campus. In the fall of **2014**, we migrated our entire data center to Charleston, where Alpha Innovations now hosts it as we continue to administer it remotely.

The rapid transition to remote learning and remote work during the pandemic of **2020-2023** has had a lingering impact on how the College delivers and supports education.

Investments made during the pandemic to create on-campus IVN classrooms resulted in the rapid expansion of these facilities, so the College now provides 42 locations for delivery of IVN instruction.

<https://web.newriver.edu/IVN-Rooms.pdf>

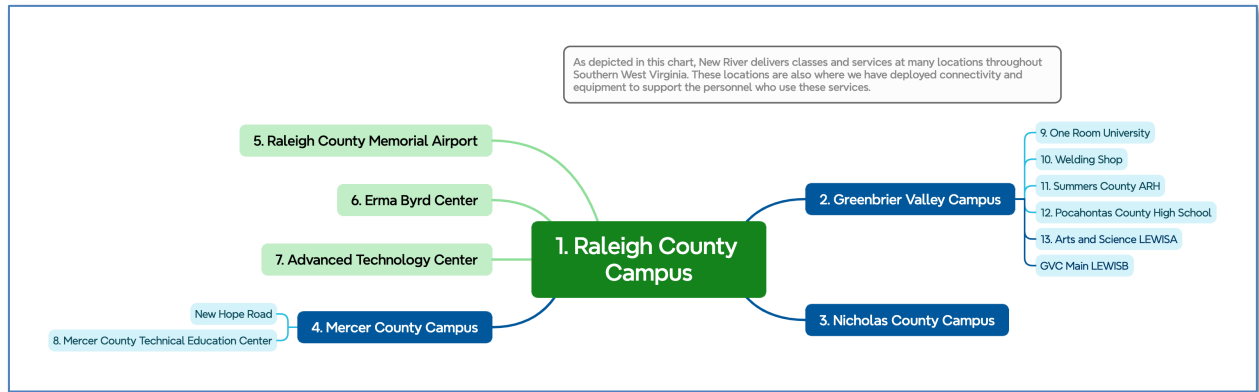
This expansion was needed to meet the demands for instruction delivered via this modality and to reduce intra-campus travel for administrative meetings.

The core infrastructure supporting college services comprises a Cisco unified network infrastructure of switches, routers, firewalls, wireless access points, and VoIP phones. New River manages over 500 college-owned computer endpoints that securely connect to this network infrastructure. Additionally, guest wireless connectivity with limited access privileges is also provided. About 200 phones and five fax lines are provided throughout the college. This infrastructure includes printers, copiers, credit card machines, elevator phones, alarm systems, and other services.

Two off-site locations (not represented in Table 1) provide essential data storage, backups, and services for New River. WVNET (in Morgantown) hosts Ellucian Banner, DegreeWorks, Argos, Brightspace, and other core business services. Alpha Innovations (in Charleston) hosts our virtualized off-site data center and provides phone and network management services.

The College has deployed and supports videoconferencing classrooms, computers, and other equipment at 13 locations to support a 9-county region (see Table 1).

Table 1. New River Community and Technical College Locations



As of 2025, there were 13 distinct New River locations

4. Services and Staffing

There are currently six full-time and three part-time positions in IT, with two vacancies for two additional full-time employees (see **Appendix B**).

A Systems Programmer is an essential need (and a very high priority) for our team, and we plan to fill this position in 2025. We will continue to hire part-time student workers to maintain operations that meet the College's evolving multi-campus needs.

The IT department maintains several specializations that enable us to best meet service expectations with our small staff. In each specialty area, our staff members provide crucial support and services to employees and students throughout the College (see <https://web.newriver.edu/aboutus/services.html>).

As a result of these specializations, vacancies severely impact our level of service, and we will work to fill open positions as expediently as resources allow.

5. Responding to Change

This IT Plan establishes how the college will adapt to environmental changes that require IT services. To effectively adapt to changes in technology support in higher education, institutions need a clear vision, a culture of innovation, comprehensive training, and ongoing evaluation while prioritizing accessibility, data security, and collaboration.

In response to the challenges and changes experienced by the college, our IT staff has needed to plan, purchase, install, and configure new equipment while also contracting for new services and software agreements. The IT staff has been flexible, responsive, and adaptable to these changes and will remain flexible as we continue to meet new challenges.

IV. New Demands, Areas for Improvement, and Next Steps

Before the pandemic (which generally lasted from **2020 to 2023**), there was a clear focus on in-seat learning, and remote learning was a fringe activity aimed at accommodating additional students who had challenges preventing them from realizing in-seat educational opportunities.

In **2009**, we implemented new definitions for all Instructional Modalities. Before then, it was not possible to distinguish a 100% online course from a course that was only partially online. In **2024**, we implemented new data definitions for all Instructional Modalities to simplify and clarify the options available using current technologies. All learning has been categorized as either **fully** remote (WEB and ZOOM) or **blended** (TRAD, IVN, and HYFLX).

<https://web.newriver.edu/technology/course-modalities.pdf>

It is worth mentioning that even when overall enrollment has declined, distance education enrollment has continued to increase steadily. In **2025**, a committee was formed to better understand preferred remote learning options while identifying recommendations for improving or redesigning our IVN classrooms. That committee discovered that while most students prefer WEB and ZOOM modalities that enable them to engage in remote learning from locations outside the College, the majority of faculty still preferred to have on-campus delivery options. This information will guide decisions and planning for the continued support of existing classrooms while presenting new opportunities for individualizing on-site remote learning options for students.

We will continue collaborating with other agencies (e.g., DHS CISA, Sophos, and the WVARNG AITEC) to obtain objective data regarding our security vulnerabilities. We will then address these issues by collaborating with vendors to develop more formal information security procedures to guide our actions and improve information security.

1. Off-Site Data Center and Business Continuity Planning

In **January 2015**, we moved our hosted enterprise systems from our own data center to an off-site data center in Charleston, WV. This decision ensures that the college's hosted online services remain available through any power and Internet disruption since this off-site data center provides redundancies that are unavailable at any of our college locations. This off-site data center also facilitates our disaster recovery and business continuity planning since we can expect access to these services even when New River's buildings might be offline.

Since **2009**, WVNET has hosted additional business-critical infrastructure in Morgantown, ensuring that essential services remain available even when college facilities might be offline.

Cloud-based services, like Microsoft OneDrive, add user file storage and backup capacity, improving employees' ability to work from anywhere.

Next Steps: During this planning period, we will review and update business continuity and disaster recovery plans, policies, and procedures.

2. Online Student Services and Support for Remote Education

In the fall of **2005**, distance education comprised only about **10%** of the college's overall enrollment. In the fall of **2024**, however, it comprised more than **70%** of the overall enrollment.

New River does not yet offer any degrees or certificates completely at a distance, but the Higher Learning Commission approved us in **2013** to offer up to 100% of our courses and programs at a

distance. Progress in this area may reduce the costs associated with supporting physical classroom spaces while also contributing to opportunities for overall enrollment growth. The **Distance Education Advisory Group** can help to guide this transition.

SARA (State Authorization Reciprocity Agreement) approval was awarded in 2024. Participation in SARA allows institutions to offer distance education courses and programs to students in other SARA-participating states without seeking state authorization, broadening New River's service region beyond nine counties of Southern West Virginia.

To meet the needs of this increasing population of remote students (while continuing to serve our in-seat students), all student services must be available to both groups.

In just the past few years, the college has implemented many online student services to meet the needs of an increasingly remote audience of student users. While improved student services benefit all students, it is especially important for our growing number of remote students, who may never, or only occasionally, appear in person at one of our campuses.

A new Customer Relationship Management (CRM) solution, **Element 451**, was implemented in 2022. This solution for online admissions enables the college to admit students without requiring them to visit a campus. Identity verification is completed online, and the CRM promotes ongoing communication with new students by various staff members throughout a student's crucial first semester. The CRM brings students together with an assigned *Academic Advisor* and *Success Coach*.

Next Steps: Challenges in this area include (a) providing an orientation experience for all new students (that results in preparing them to learn and obtain support in a remote learning environment), (b) continuously adapting student support services to meet the needs of remote students, and (c) measuring the effectiveness of these service delivery models to understand where additional improvements are most needed.

In 2025, an exit exam will be developed for new student orientation to establish standardized performance metrics to ensure a uniform skill level among all students.

AI-driven features should be implemented to support students with easy access to critical information anytime.

3. Identity and Access Management (IAM) with PortalGuard

Before implementing a single sign-on (SSO) portal (with *CampsEAI* initially and then later replaced by *PortalGuard*), almost every New River online service required separate authentication, and each service had its own URL or web page to be accessed individually. Clearly, that was too many usernames, passwords, and URLs for users to remember. As a result, this cumbersome approach resulted in users forgetting their credentials for online services and requiring assistance to reset their passwords. Not every system required a strong password, so information security was lacking.

As of 2025, the college portal integrates multiple online services into a single sign-on environment that requires strong passwords and MFA. Users must authenticate only once to access most services available based on the role-based privileges assigned to them. The portal provides self-service password resets and includes identity-bound biometrics.

The portal includes deep links to *Ellucian Banner*, which brings useful information in dashboard-like nuggets for specific user groups on the portal landing page. The portal login page is also a

channel for communicating announcements to all users, and it provides all student users with access to the annual **Consent to Do Business Electronically** requirement for GLBA compliance.

Next Steps: During the **2025-2030** timeframe, we will explore enterprise password management solutions that integrate with *PortalGuard* to further enhance security and streamline user password management.

4. Security and Privacy (Training and Policies)

Cyberattacks continue to rapidly increase in severity and frequency. New River implemented *KnowBe4* training in **August 2019** and continues to depend on it to provide security and privacy training to all employees. Each employee is encouraged to complete the monthly training, and annual employee evaluations now include this training progress, enabling supervisors to ensure the training is completed.

Data Stewards are expected to complete additional privacy training provided by the Department of Homeland Security (DHS) and include their certificates of completion in their annual evaluations.

A collegewide privacy policy was developed and implemented in **2024**.

Next Steps: The cybersecurity threat landscape includes more than networks and computers. It also includes mobile devices and many devices comprising the Internet of Things (IoT), including cameras, sensors, alarms, automation devices, and more. It will be an ongoing challenge to embrace these technologies and include them in our overall security and privacy efforts.

Only a few locations throughout the college provide video surveillance to monitor the security of our facilities, personnel, and students. Although our new facilities include these services, we must re-examine our older facilities and consider retrofitting them to conform to any new standards chosen. This will allow a single college-wide video surveillance solution with some centralized management while improving security collegewide.

5. Fax and Voice Services

In **January 2025**, we migrated all phone and fax services to Alpha Voice and Fax services. Phone services had previously been provided by legacy Cisco servers hosted in our Charleston data center. Fax services were previously a combination of physical devices with dedicated phone lines, and XMedius provided some online fax services. This migration resulted in all phone and fax services being consolidated into a cloud-hosted solution provided by Alpha Innovations. Some key benefits include improved security, simpler management, and new user features. Alpha Voice provides a mobile app enabling all users to use their business phone number to receive and place calls from their mobile phones. Fax numbers previously assigned to campus locations were re-assigned to departments that usually span multiple locations.

Next Steps: In **2025**, we will merge the Erma Byrd Public Higher Education Center (PHEC) network and phone systems with New River's system. This will improve our ability to manage PHEC services while reducing costs.

6. Employee Onboarding, Offboarding, and Orientation

The best opportunity to provide critical information to all new students and employees is during orientation. However, orientation is not yet a required experience for part-time employees and there is no single standard or evidence of students completing orientation.

Although the college now offers an online orientation for all new students, we do not yet know how effective it has been. Once we know, we hope to collaborate with others to make an online orientation available to all full-time and part-time employees as well.

One IT responsibility is creating user accounts and providing the role-based access that employees and students need for each of our services. Not every service integrates with the portal for single sign-on, so managing these accounts requires some rather extensive oversight.

The IT department has experienced a tremendous increase in activity and demand in employee onboarding and offboarding. To meet these demands, we must either provide fewer services to part-time employees (the highest volume of turnover at the College) or develop new efficiencies and procedures to ensure that every new employee is granted all the needed access and services. Our auditors require documentation of these steps and completion of these tasks, and we continue to improve in this area.

Next Steps: As new users enter our organization, we must be able to respond quickly to meet these needs. Similarly, as users depart our organization, we must be able to promptly remove their assigned privileges as well. Our IT staff collaborates with HR staff and supervisors to manage these needs, and we are continuously refining and updating internal administrative department procedures to reflect these improvements. We document administrative department procedures and publish this information online.

An increasing number of employees are working remotely, so we must ensure their secure access to critical college services. Although full-time employees receive an orientation from Human Resources, part-time employees currently do not. Like the progressive advancements made by providing a HYFLX version of student orientation, we hope to collaborate with others during this **2025-2030** period to provide all employees access to orientation using the HYFLX modality.

7. Emerging Technologies and Digital Transformation

Any five-year technology plan can be interpreted as only “best guesses” regarding the future of current technologies and the often-unanticipated introduction of new technologies. New River relies on industry standards for enterprise applications. As updates are released and even entirely new products are introduced, we must be poised and ready to adapt to this changing environment. New River can minimize the disruptions inherent in the transition through these changes through a standards-based approach that avoids proprietary technologies.

a. Artificial Intelligence

AI is developing rapidly, and many vendors are including AI features in routine updates. There are multiple types of AI. Most software vendors incorporate AI features in their routine upgrades, so it is difficult to anticipate what new features might soon become available. In **2025**, we reviewed the software services in use at New River and identified 23 separate services already using AI.

This trend is expected to continue, with multiple vendors making AI features available. We must develop procedures and policies to guide our users in securely implementing AI with clear expectations. We must review our existing **Standard Terms and Conditions for Information Privacy and Security** and work with vendors to obtain their acknowledgment of our expectations.

<https://web.newriver.edu/procedures/Standard-Terms-and-Conditions.pdf>

Agentic generative AI goes beyond simply creating content and involves AI systems that can act autonomously to make decisions and take actions while adapting to a changing environment.

b. Digital Literacy

In higher education, digital literacy encompasses the skills and knowledge needed to effectively use and understand digital technologies, including finding, evaluating, creating, and communicating information, which is crucial for academic success and future careers.

Improved efforts are needed to identify how these skills are acquired (by students and employees) while providing some evidence of their mastery, which is expected for this 2025-2030 timeframe. Improved efforts will ensure that the college's curriculum enables students to acquire and establish evidence of digital literacy.

c. Quantum Computing

Experts predict post-quantum computing (PQC) developments will defeat current cryptography standards before 2030. By monitoring these developments and planning for these changes with vendors and others, New River will adapt to future security demands.

d. Virtual Reality and Simulations

Virtual reality and simulations for learning are increasingly accessible, and some academic programs seem ready to embrace these technologies.

Next Steps: As new technologies and opportunities become available, we must be prepared to choose enterprise solutions that meet our changing needs. Incorporating IT in the planning stages of adopting new technologies will ensure improved implementation while supporting overall college goals and plans for technology services.

V. Summary

In summary, this plan has attempted to provide an overview of technology services while charting a future path. Admittedly, the future is uncertain. But it is an exciting time to be at New River because the improvements that have been made and those that are planned will continue to elevate the college as a top-ranked, two-year community college.

This plan will guide decisions for the foreseen future, but a high level of flexibility will enable us to react to unforeseen challenges.

Understanding the areas mentioned in this plan that will require future action for improvement is an excellent first step toward taking these positive steps.

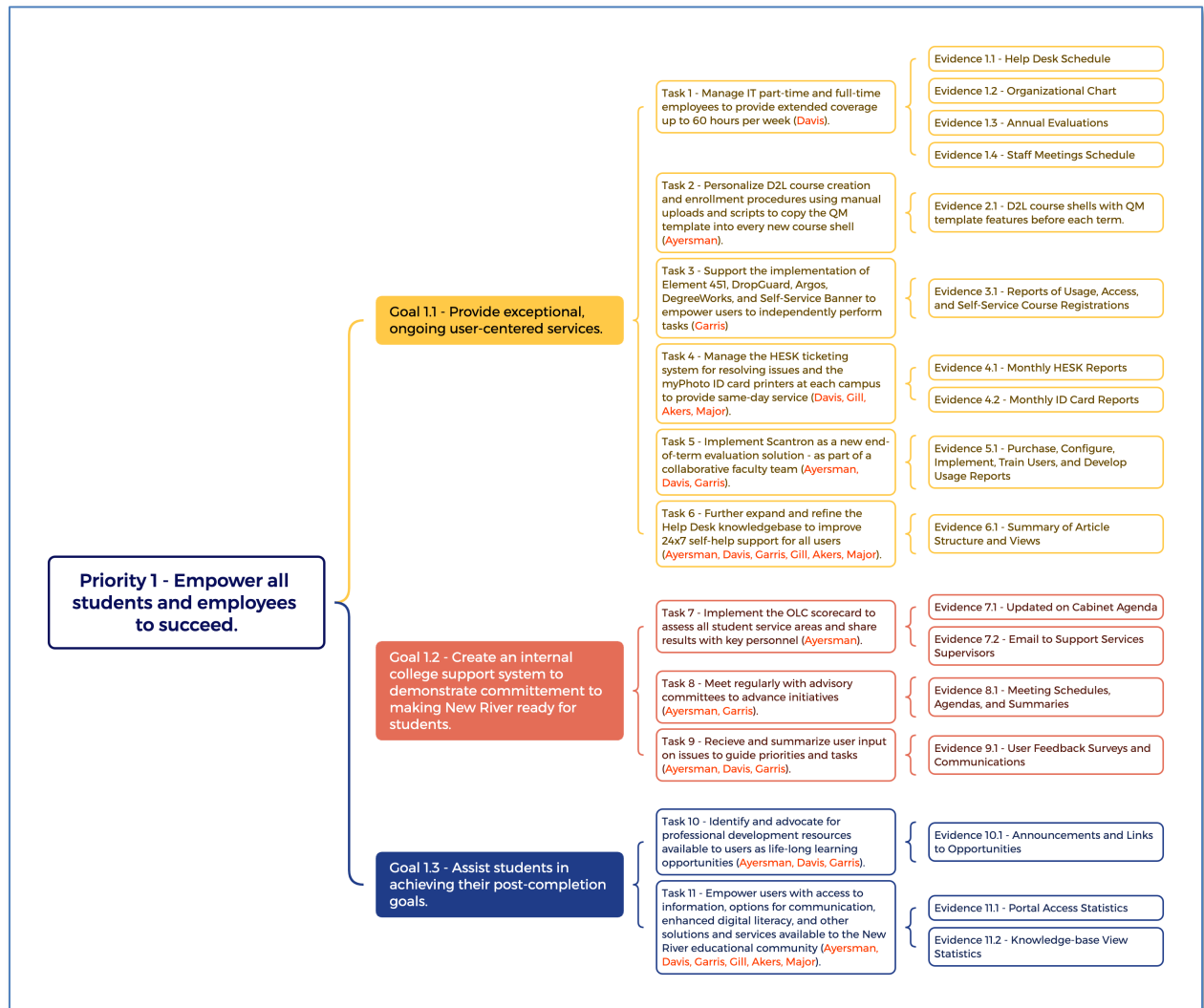
Emerging technologies and evolving standards, recommendations, and guidelines require some flexibility to make necessary changes, especially if prior planning hasn't anticipated these changes.

References

- 1). Technology Services Mission
<http://web.newriver.edu/aboutus/mission.html>
- 2). Service Areas for Technology Services
<http://web.newriver.edu/aboutus/services.html>
- 3). Technology Services Organizational Chart
https://web.newriver.edu/aboutus/IT_orgchart_current-with-PT.jpg
- 4). My New River Portal
<https://my.newriver.edu>
- 5). Alignment of Mission, Goals, Objectives and Assessment Methods
<https://web.newriver.edu/aboutus/mission.html>
- 6). Projects and Timelines
<https://web.newriver.edu/projects/index.html>
- 7). Administrative Department Procedures
<http://web.newriver.edu/procedures/index.html>

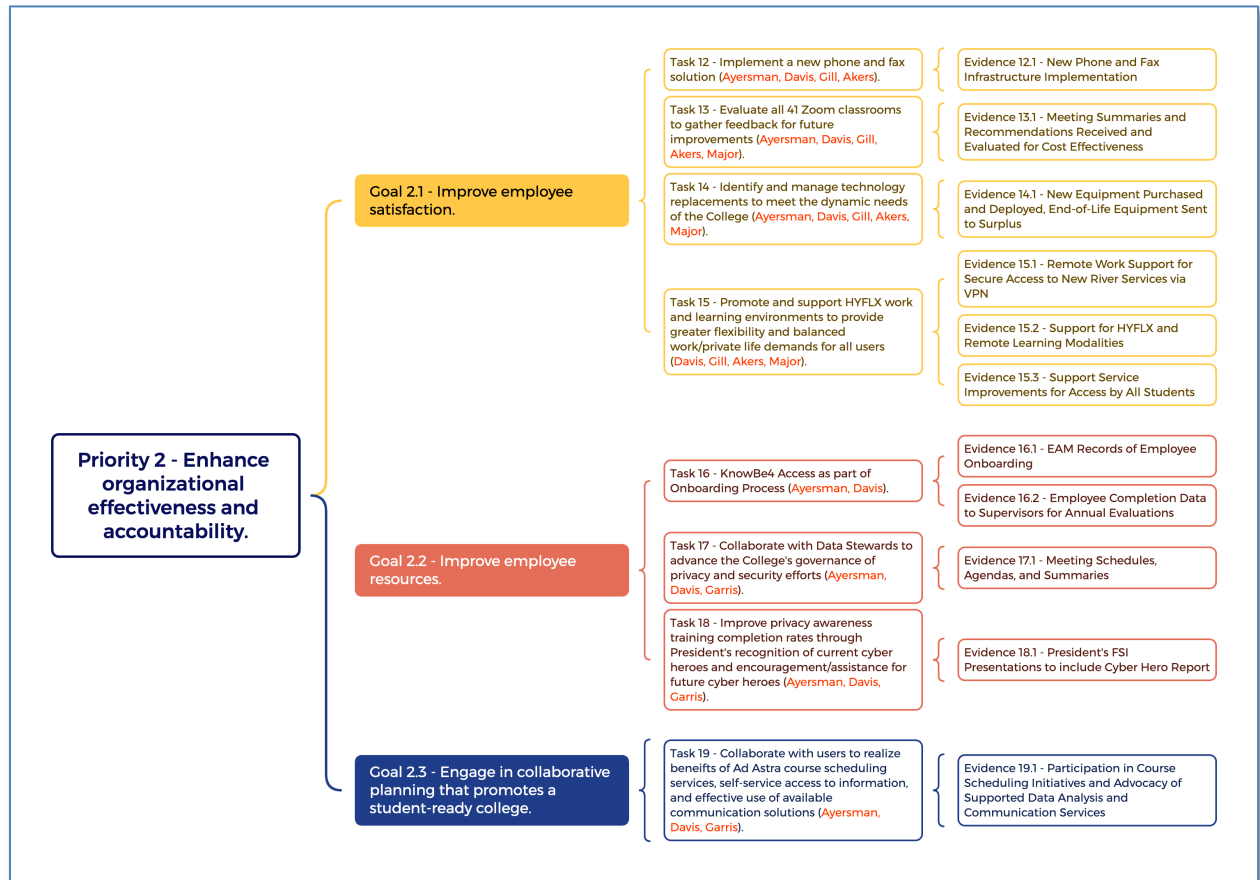
Appendix A. Top 3 IT Priorities, Goals, Tasks, and Evidence for 2025.

Priority #1

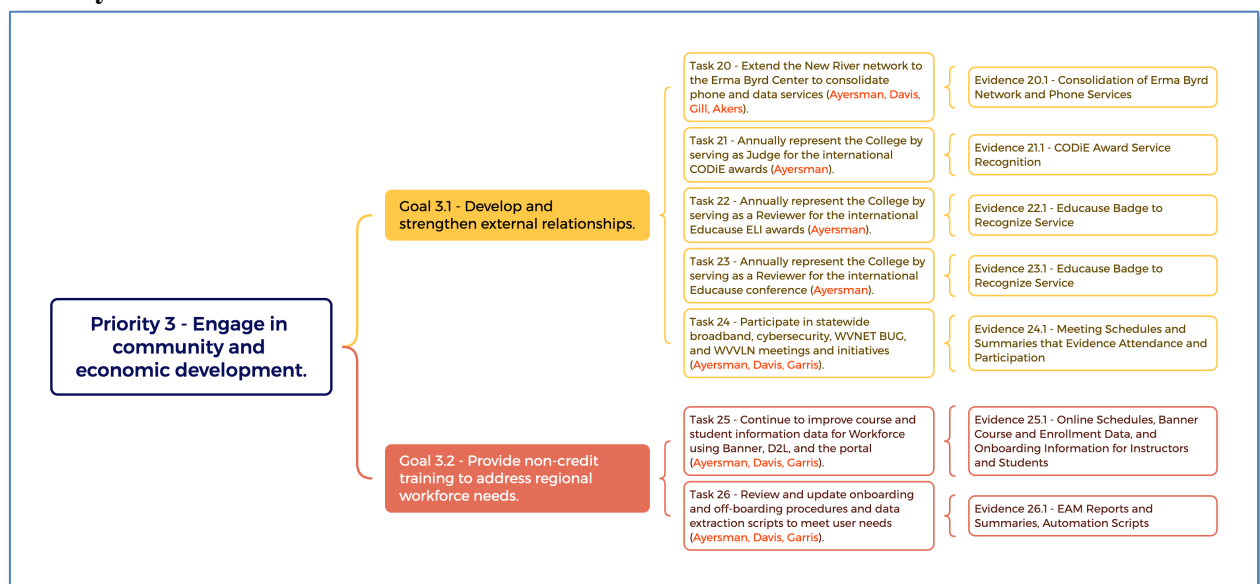


NOTE: This information is also available online at this URL:
<https://web.newriver.edu/aboutus/mission.html>

Priority #2

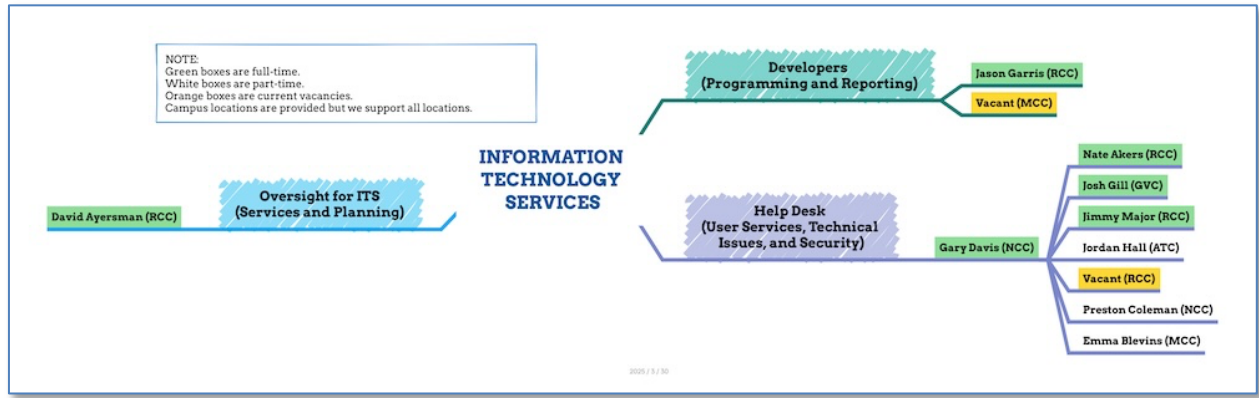


Priority #3



Appendix B. IT Organizational Chart for 2025.

The organizational chart depicted below was accurate as of **April 3, 2025**, and includes part-time student positions.



NOTE: A current organizational chart can be found at:
<https://web.newriver.edu/aboutus/ITS-orgchart.png>